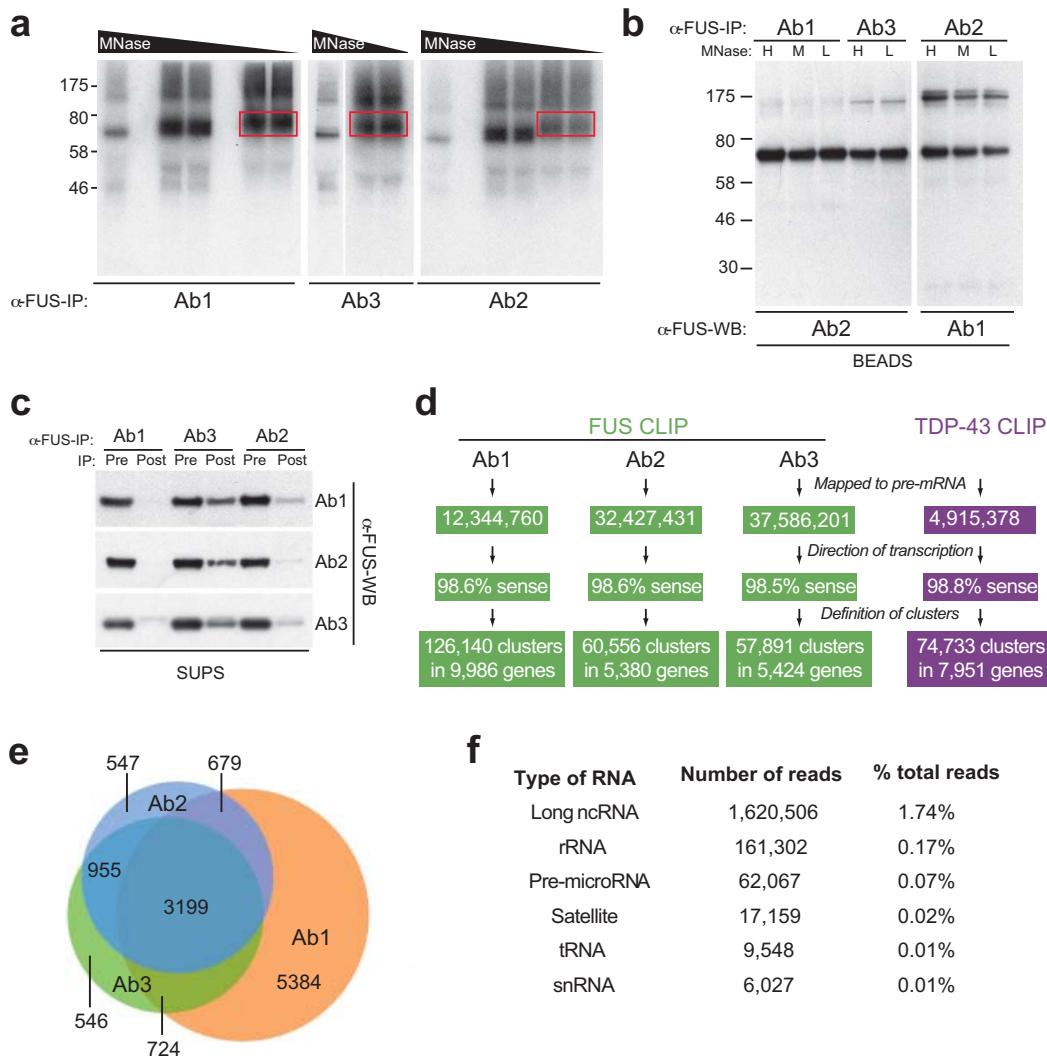


Divergent roles of ALS-linked proteins FUS/TLS and TDP-43 intersect in processing long pre-mRNAs

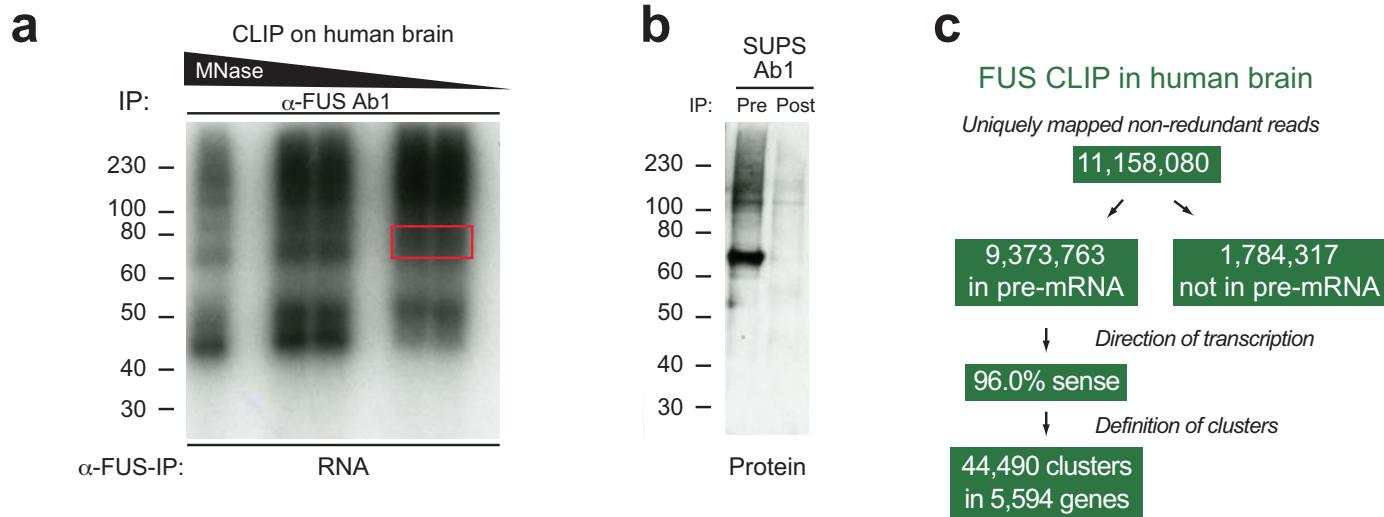
Clotilde Lagier-Tourenne^{1,2*}, Magdalini Polymenidou^{1,2*}, Kasey R. Hutt^{2,3*}, Anthony Q. Vu^{2,3}, Michael Baughn⁴, Stephanie C. Huelga^{2,3}, Kevin M. Clutario^{1,2}, Shuo-Chien Ling^{1,2}, Tiffany Y. Liang^{2,3}, Curt Mazur⁵, Edward Wancewicz⁵, Aneeza S. Kim⁵, Andy Watt⁵, Sue Freier⁵, Geoffrey G. Hicks⁶, John Paul Donohue⁷, Lily Shiue⁷, C. Frank Bennett⁵, John Ravits⁴, Don W. Cleveland^{1,2,9} and Gene W. Yeo^{2,3,8,9}

Supplementary Figure 1 Identification of FUS/TLS binding sites in mouse brain

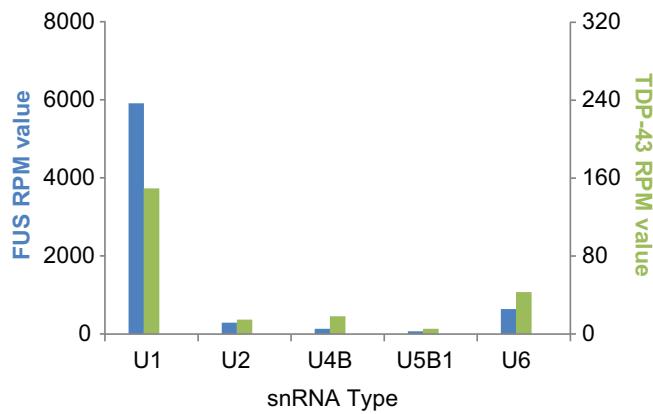


antibodies. (f) Number of CLIP-seq reads (and respective fractions of total sequence reads) that fall in different non-coding RNA categories. The remaining reads mapped uniquely in regions not annotated for any of these types of RNAs.

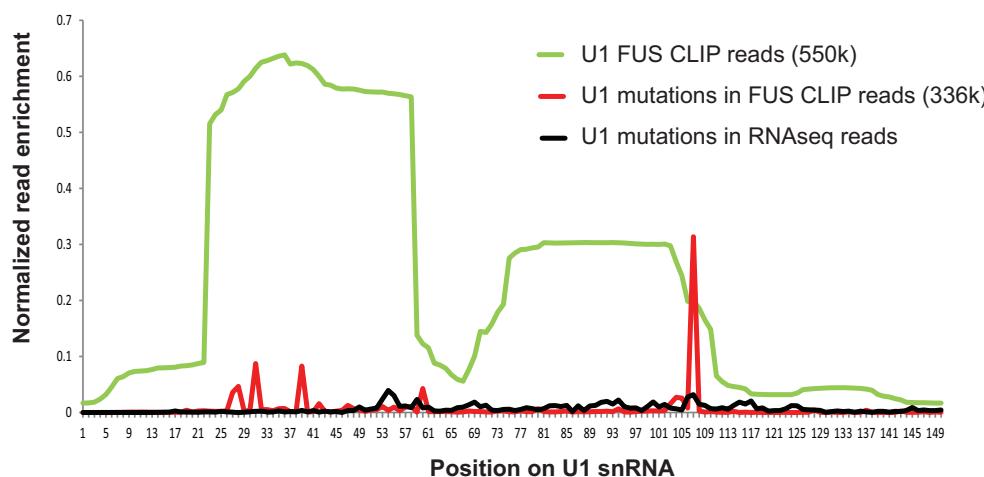
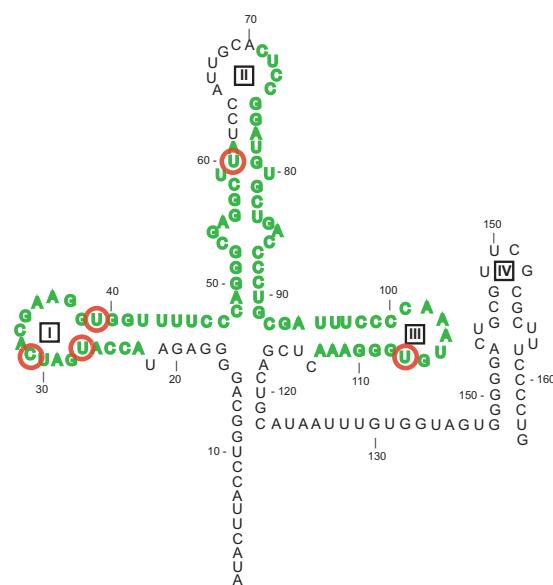
(a) Autoradiograph of FUS/TLS-RNA complexes immunoprecipitated with Ab1, Ab2 or Ab3 and trimmed by different concentrations of micrococcal nuclease (MNase). Complexes highlighted by the red box were used for CLIP-seq library preparation and sequencing. (b) Immunoblot for FUS/TLS following immunoprecipitation with each of the FUS/TLS antibodies. (c) All three antibodies efficiently immunoprecipitated FUS/TLS, as evidenced by the significant reduction of FUS/TLS protein in the supernatant after immunoprecipitation. (d) Flowchart illustrating the number of reads analyzed from FUS/TLS and TDP-43 CLIP-seq experiments. (e) Venn diagrams illustrating significant overlap of FUS/TLS binding sites identified by CLIP-seq with each of the three FUS/TLS

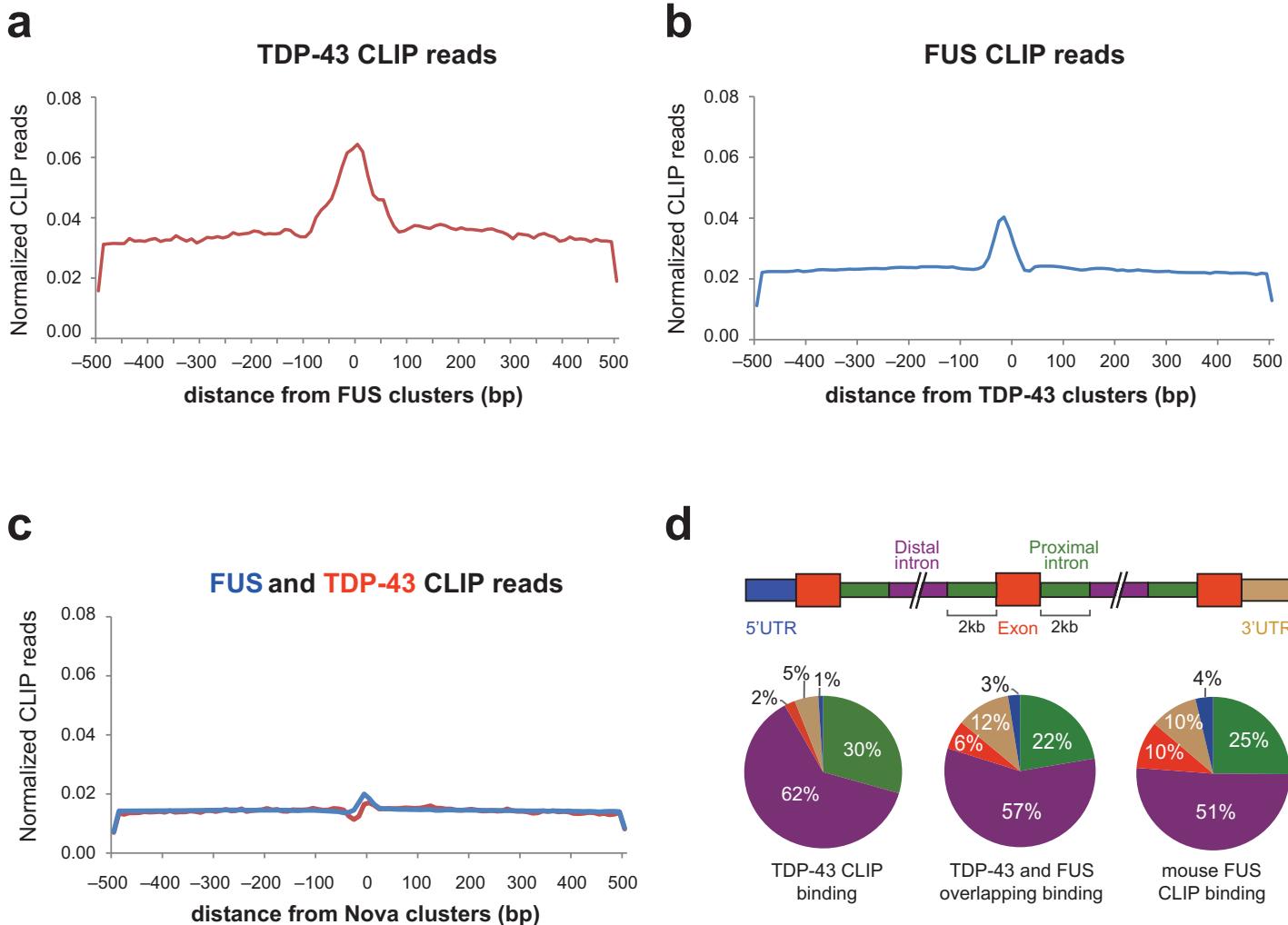
Supplementary Figure 2 Identification of FUS/TLS binding sites in human brain

(a) Autoradiograph of FUS/TLS-RNA complexes immunoprecipitated from human brain using FUS/TLS Ab1 and trimmed using different concentrations of micrococcal nuclease (MNase). Complexes highlighted by the red box were used for library preparation and sequencing. **(b)** Efficient immunoprecipitation of human FUS/TLS-RNA complexes with Ab1, as evidenced by the significant reduction of FUS/TLS protein in the supernatant after immunoprecipitation. **(c)** Flow-chart illustrating the number of reads analyzed from the human FUS/TLS CLIP-seq experiment. Almost all (96%) of uniquely mapped, non-redundant reads represent sense strand of pre-mRNA.

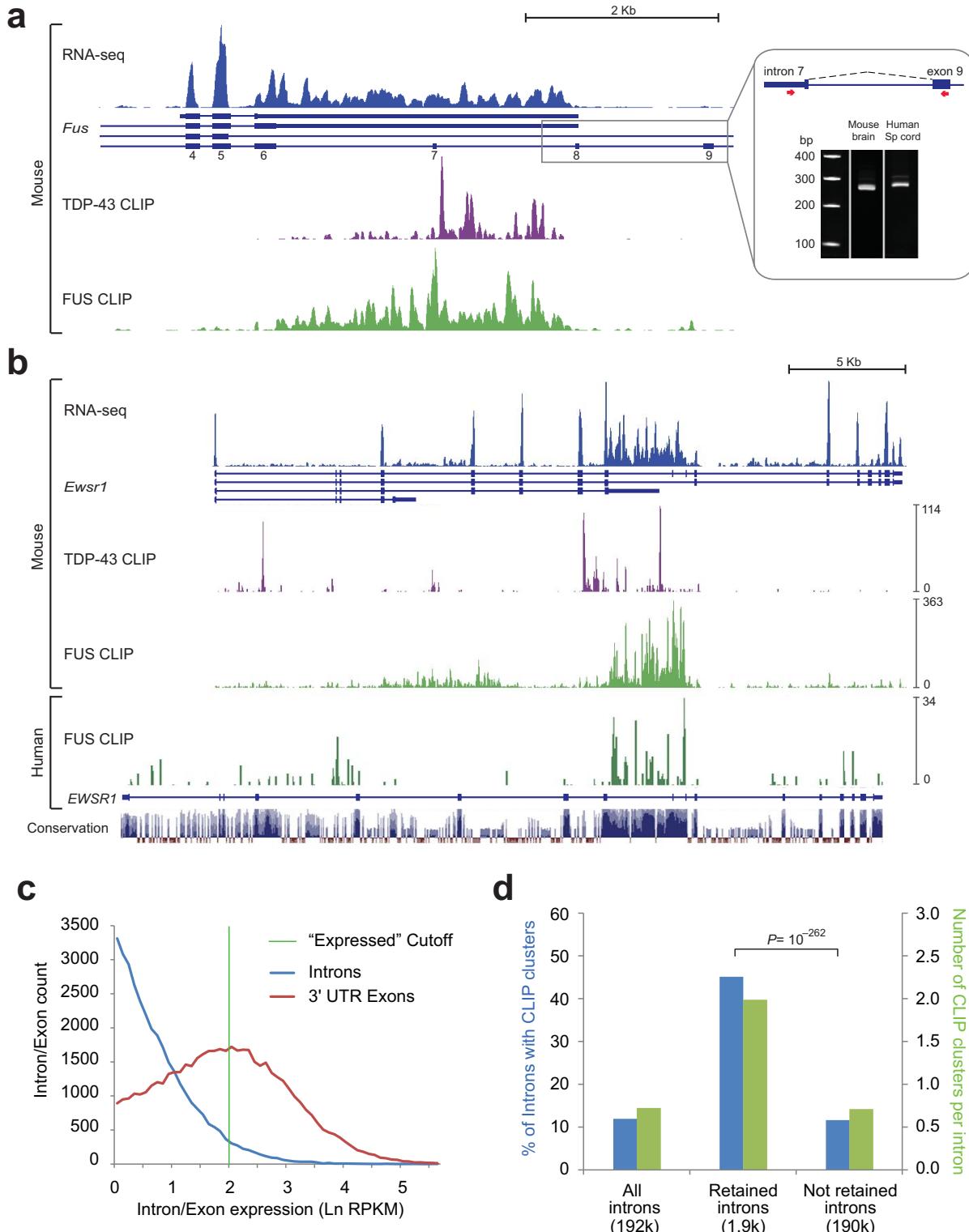
Supplementary Figure 3 *FUS/TLS associates with U1 snRNA.***a**

(a) Bar plot showing the normalized count of FUS/TLS and TDP-43 CLIP-seq reads (RPM, Reads per Million sequenced reads) mapped to U1, U2, U4B, U5B1 and U6 snRNA in mouse. **(b)** Positional plot for the FUS/TLS CLIP-seq reads mapped onto U1 snRNA (green). Positions on U1 snRNA with a high density of nucleotide-level differences between sequence reads and the genome for FUS/TLS CLIP-seq (red) and RNA-seq (black) libraries. **(c)** RNA secondary structure of U1 snRNA with nucleotides in green showing where the FUS/TLS CLIP-seq reads mapped. Red circles show the nucleotides that were cross-linked to FUS/TLS.

b**c**

Supplementary Figure 4 Comparison between FUS/TLS and TDP-43 binding sites

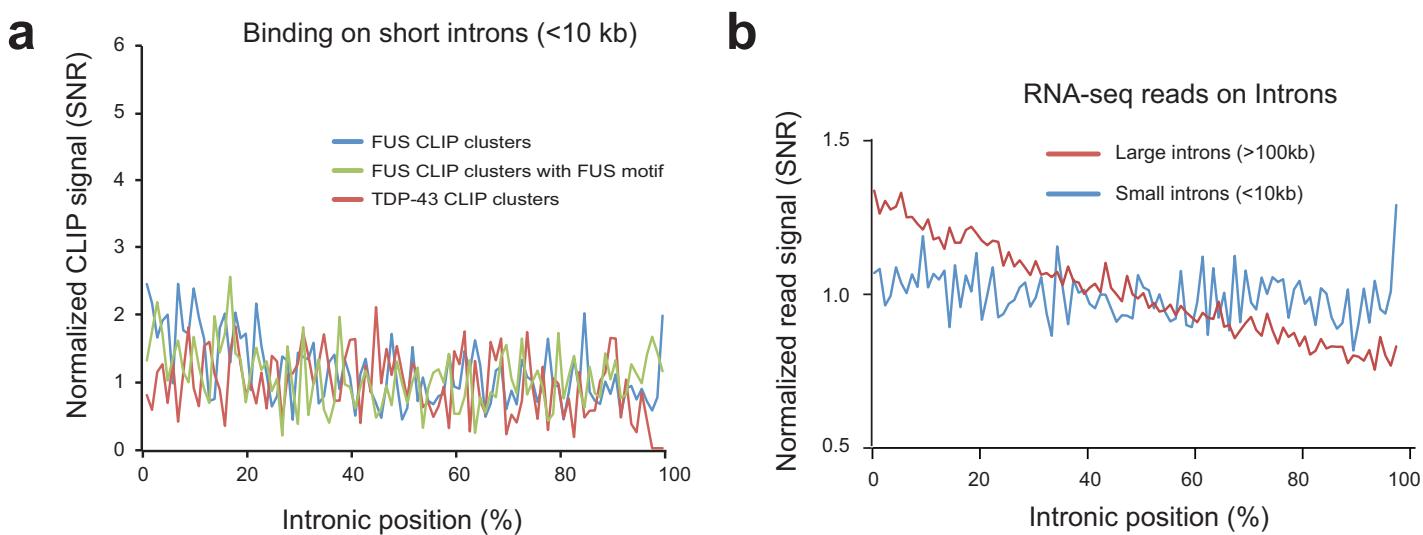
(a-b) Graphs show enrichment of TDP-43 CLIP-seq reads near the center of FUS/TLS CLIP clusters **(a)** and vice versa **(b)**. The y-axis depicts the number of CLIP-seq reads normalized to 10 million reads sequenced, per number of clusters at each position (x-axis) relative to the center of the clusters. **(c)** TDP-43 and FUS/TLS reads on Nova clusters from mouse brain. **(e)** Pre-mRNAs were divided into annotated regions as in Figure 1f (upper panel). Distribution of TDP-43 and FUS/TLS overlapping CLIP clusters (middle) across pre-mRNA was compared to that of either TDP-43 (previously published¹⁵; left), or FUS/TLS (right) binding sites alone. TDP-43 and FUS/TLS overlapping CLIP clusters show a distinct pattern from either TDP-43 or FUS/TLS alone, with increased binding enrichment within 3' untranslated regions.

Supplementary Figure 5 *FUS/TLS binding on retained introns*

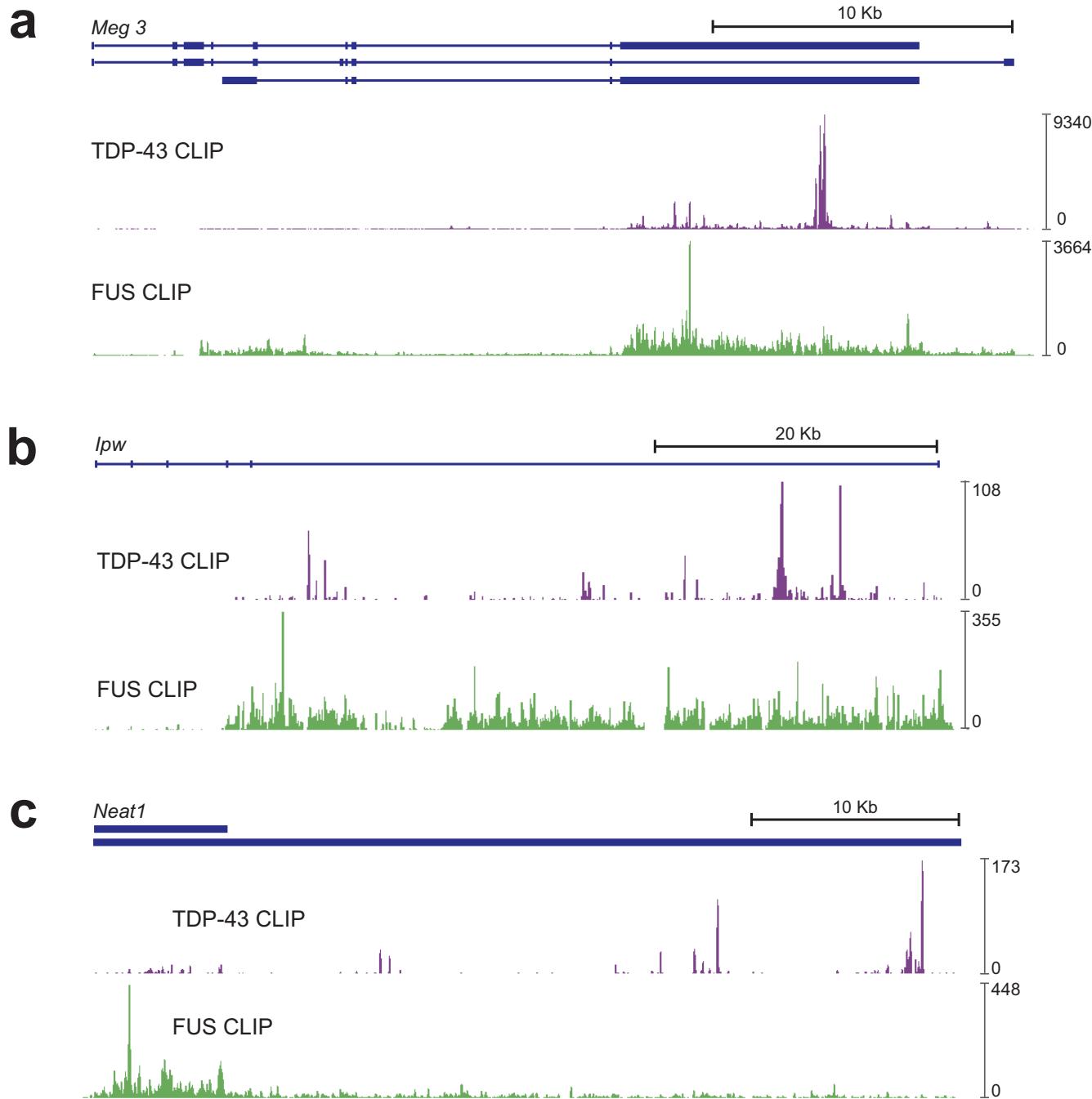
(a) Focused view of the region of *Fus/Tls* transcript with FUS/TLS (green) or TDP-43 (purple) binding. FUS/TLS CLIP-seq reads are scattered across a highly conserved region that may represent either an alternative 3'

untranslated region (3'UTR), or intron retention, as evidenced by the high density of RNA-seq reads (blue). Using primers (red arrows) located in intron 7 and exon 9, a *Fus/Tls* isoform with retention of intron 7 in human spinal cord and mouse brain was amplified (inset). (b) FUS/TLS binding on mouse (light green) and human (dark green) Ewing sarcoma breakpoint region 1 (*EWSR1*) transcript showing broad binding mainly within a highly conserved region that may represent either an alternative 3' untranslated region (3'UTR), or intron retention. TDP-43 binding is also found in the same region (purple), but the pattern is distinct from that of FUS/TLS. (c) Histogram depicting the number of introns (blue) and 3'UTR exons (red) at different expression levels (natural log RPKM) as measured by RNA-seq in mouse brain. Candidate retained introns are defined as intronic regions that are expressed higher than 2 (natural log RPKM; green line represents cutoff), based on the highest proportion of 3'UTR expression levels (assuming retained introns will have similar expression levels as 3'UTRs). (d) Bar plot (blue bars) showing the percentages of all introns, candidate retained (above the threshold of 2) or not-retained introns that contain CLIP-seq clusters, and the mean number of CLIP-seq clusters per intron (green bars). P-value = 10^{-262} by Chi-Square.

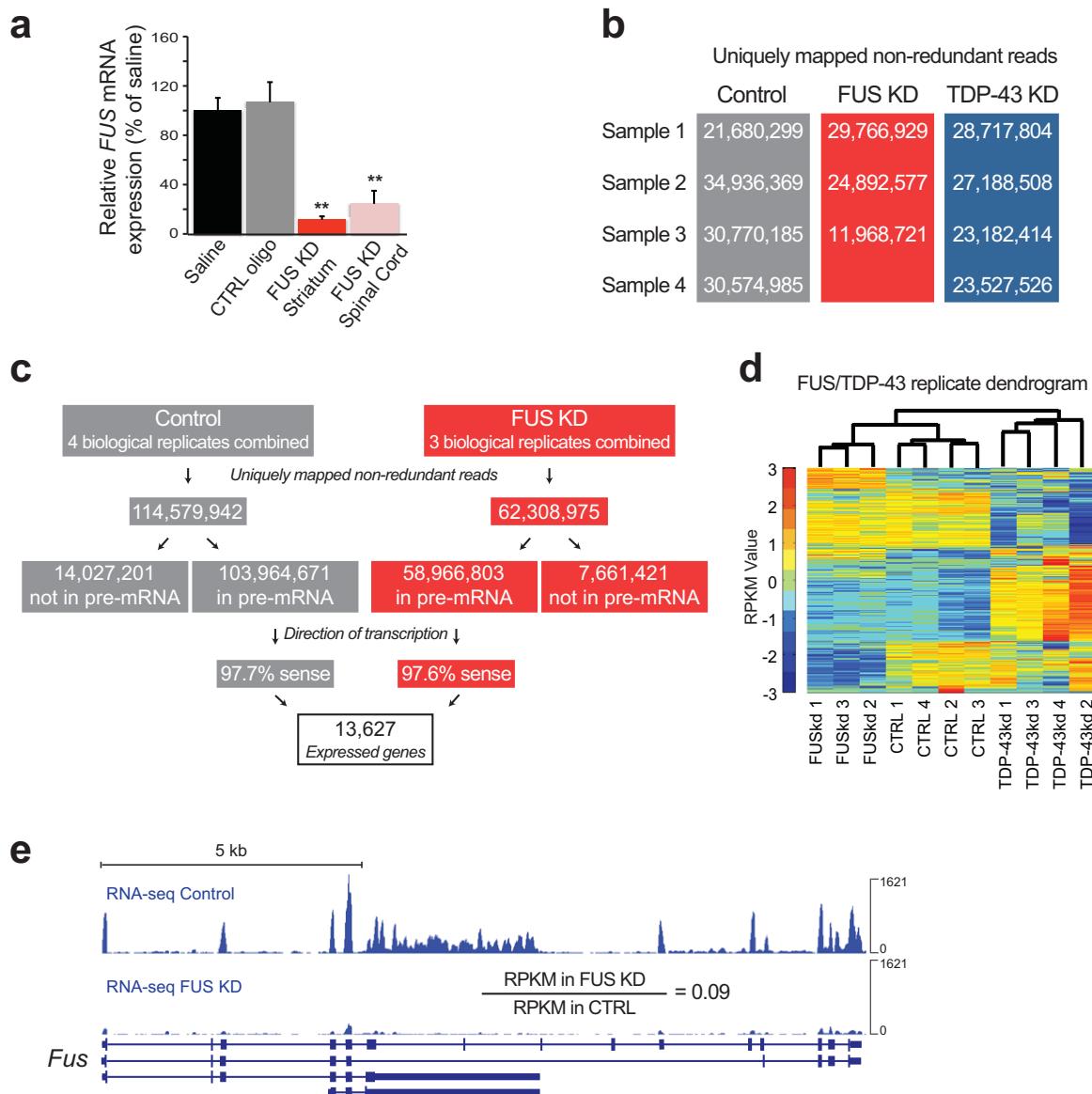
Supplementary Figure 6 *FUS/TLS binding on long introns mimics nascent transcripts predicted from RNA-seq data*



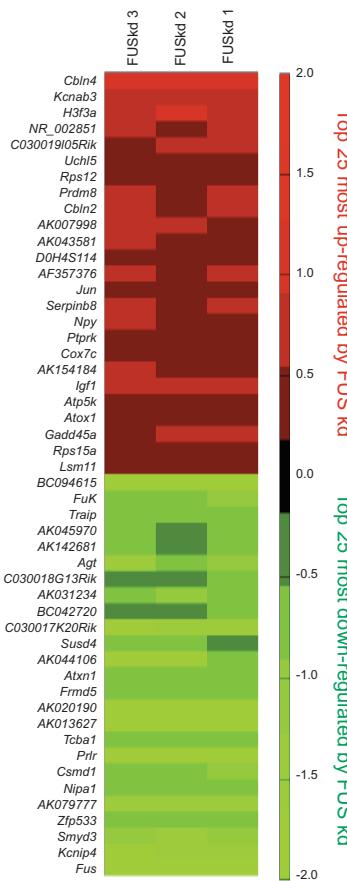
(a) FUS/TLS CLIP-seq reads were distributed across the entirety of short introns without obvious enrichment. The x-axis for both graphs depicts the position within the intron as a percentage of the length of the intron, and the y-axis depicts the signal-to-noise ratio (SNR) of the per gene fraction of CLIP-seq clusters or RNA-seq reads per 1% intron bins, with the noise measured as the average across all bins. (b) Graph showing increased density of RNA-seq reads at the beginning of long >100kb, but not short <10kb introns. This pattern was recently proposed to mark nascent transcripts²².

Supplementary Figure 7 *FUS/TLS binding on long non-coding RNAs*

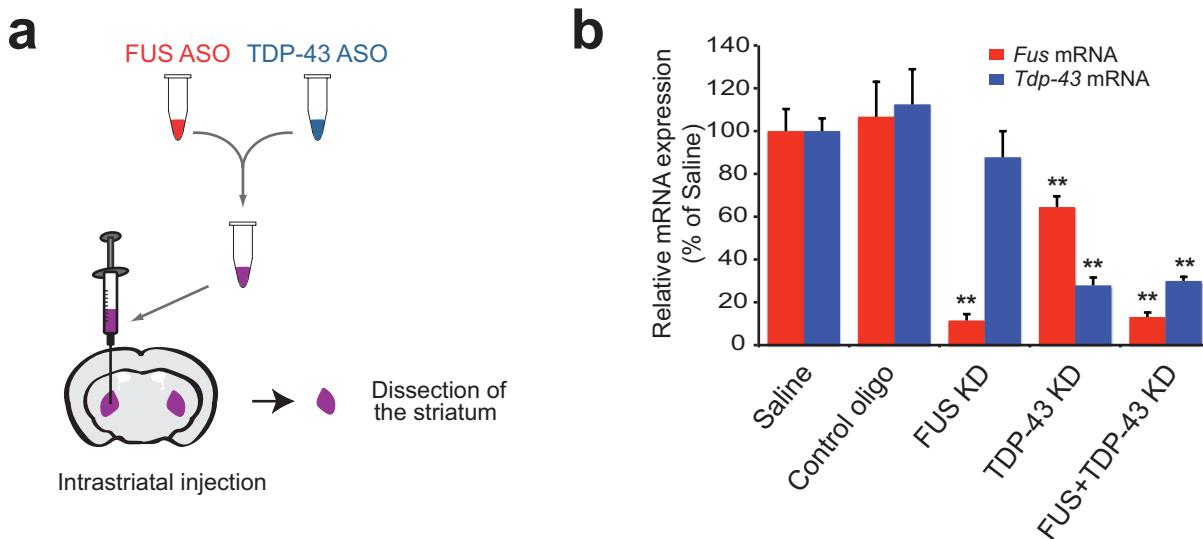
Examples of FUS/TLS binding on long non-coding RNAs (ncRNA). (a) FUS/TLS CLIP-seq reads (green) on mouse maternally expressed 3 (*Meg3*) ncRNA displaying binding at a sharp peak in a different position from TDP-43 binding (purple). (b) FUS/TLS binding (green) is scattered throughout the entire *Ipw* (imprinted in Prader-Willi syndrome) ncRNA, in contrast to TDP-43 (purple), which binds in different, confined locations. (c) FUS/TLS binding (green) is mainly localized at the beginning of *Neat 1* (Nuclear Enriched Abundant Transcript 1) ncRNA, while TDP-43 (purple) binding peaks are found towards the end of the transcript.

Supplementary Figure 8 RNA-seq analysis of mouse brain after ASO-mediated FUS/TLS depletion

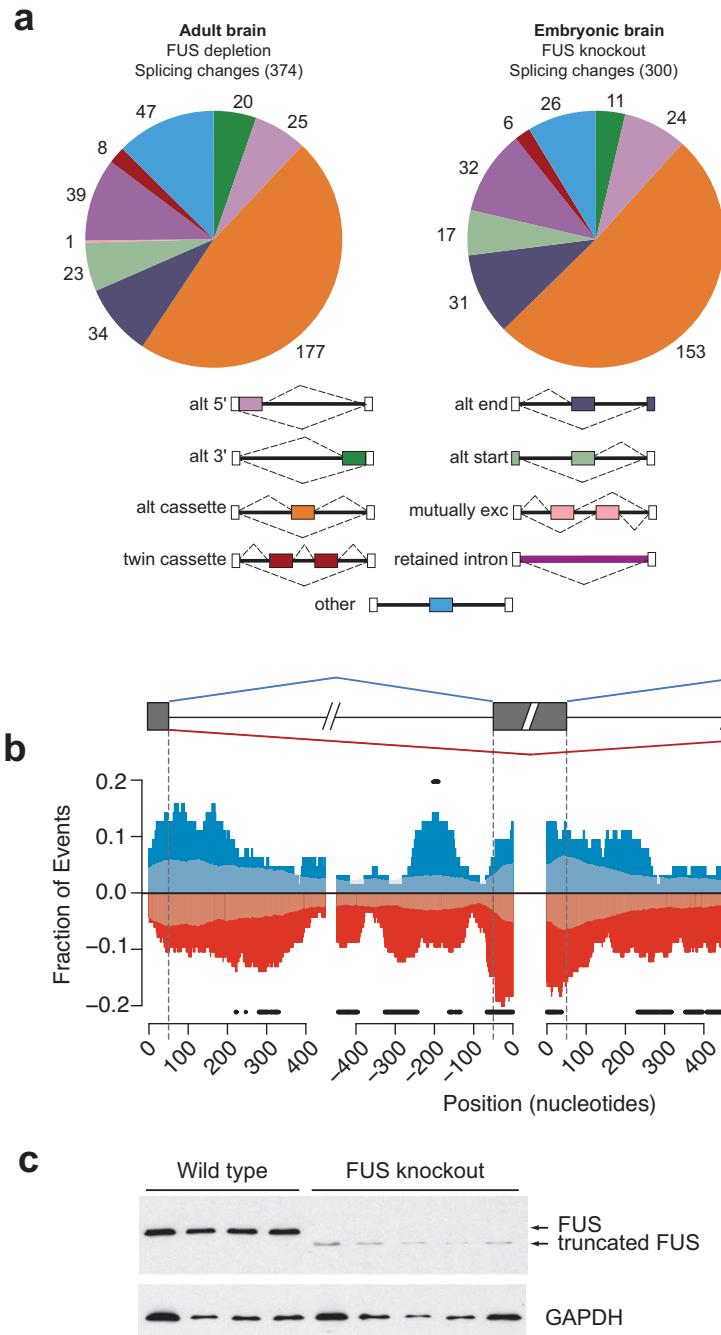
(a) Quantitative RT-PCR validating reduction of FUS/TLS mRNA to 10% or 20% of controls in striata or spinal cords of ASO-treated animals, respectively. Error bars represent standard deviation of three biological replicas in each group. (b) Numbers of uniquely mapped, non-redundant (i.e., excluding PCR duplicates) reads obtained by RNA-seq libraries of the different biological replicas in each condition, as marked. (c) Flow-chart illustrating the number of RNA-seq reads analyzed from the combined biological replicates of each FUS/TLS depletion or control conditions. Over 97% of uniquely mapped, non-redundant reads fell within the sense strand of pre-mRNA, as expected from strand-specific library preparation. (d) Hierarchical clustering of RNA-seq data from biological replicates of FUS/TLS, TDP-43 and control ASO-mediated depletion of proteins from mouse brains, using genes differentially regulated from the pooled samples. (e) Example of RNA-seq reads from control or FUS/TLS depleted sample (equal scales), showing the dramatic decrease of FUS/TLS mRNA in the knockdown sample. Based on RPKM (mapped reads per kilobase of exon, per million mapped reads) analysis, FUS/TLS was reduced to 9% of the levels in control treatments, consistent with quantitative RT-PCR (qRT-PCR) measurements (Fig. 3e).

Supplementary Figure 9 Expression changes upon FUS/TLS depletion are reproducible

The top 25 genes of the most up- and down-regulated genes are plotted by their expression changes across the three replicate experiments using the Matlab HeatMap command. Genes are sorted from the most up- to the most down-regulated, and the scale represents the natural logarithm (Ln) of RPKM ratios.

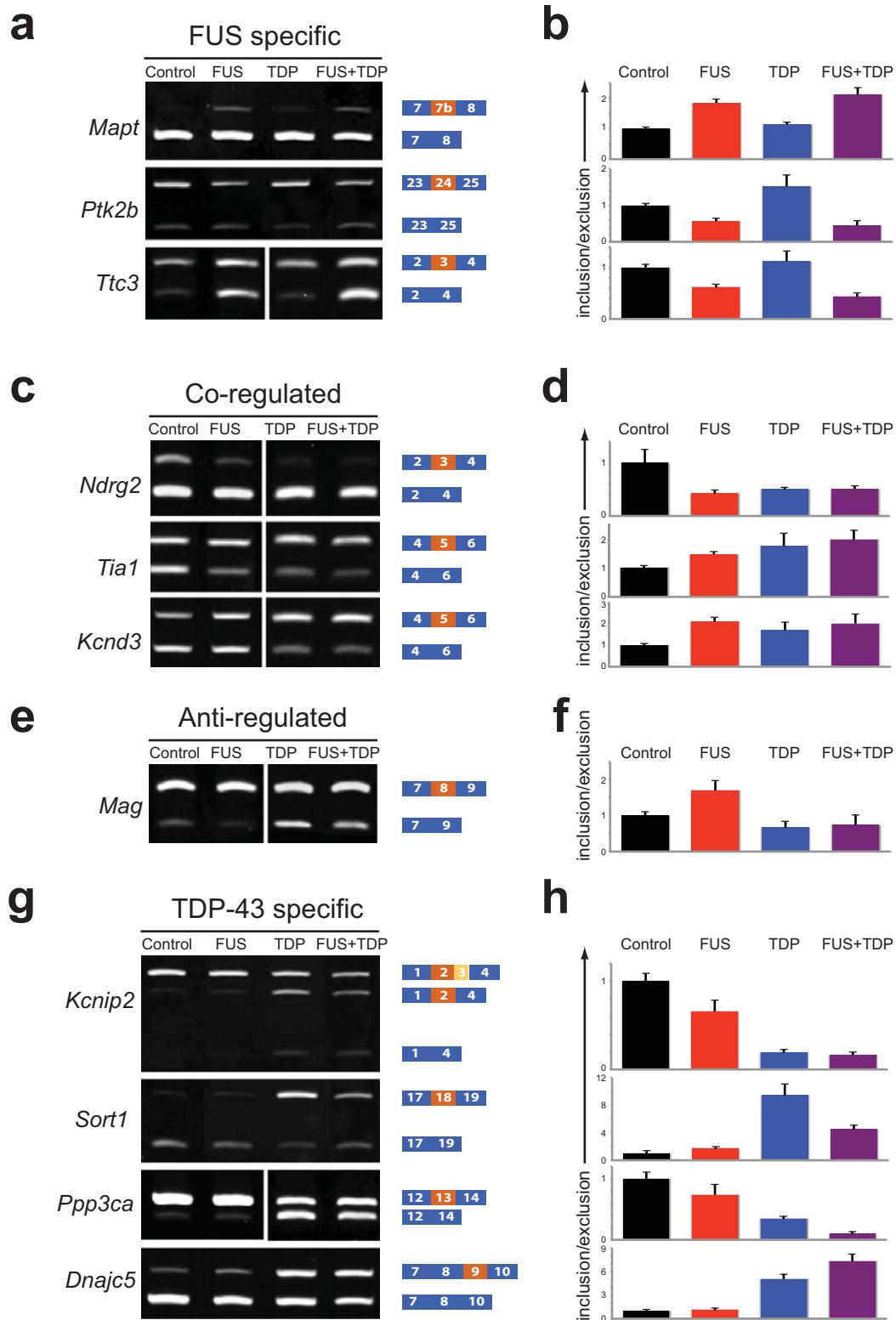
Supplementary Figure 10 In vivo concomitant depletion of TDP-43 and FUS/TLS

(a) Strategy for concomitant depletion of both TDP-43 and FUS/TLS in mouse striatum by injection of FUS/TLS and TDP-43-specific ASOs directly into the striatum of adult mice. **(b)** Quantitative RT-PCR of FUS/TLS or TDP-43 mRNAs in striata of control mice or mice treated with ASOs to reduce FUS/TLS, TDP-43, or both.

Supplementary Figure 11 Splicing changes upon FUS/TLS depletion

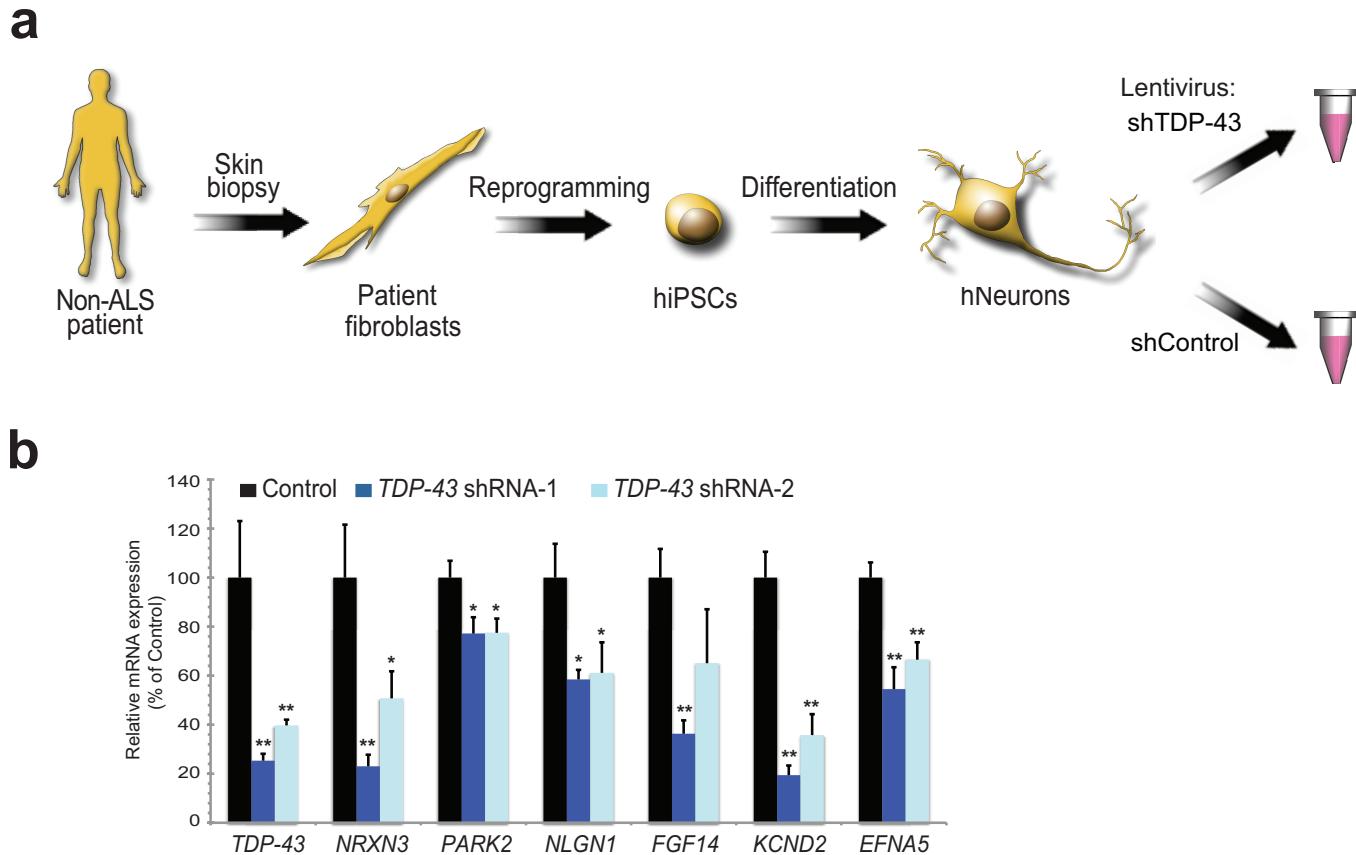
nucleotide position relative to upstream, cassette, and downstream exons. Vertical dashed lines separate positions that fall within the upstream exon, in the cassette exon, and in the downstream exon. Black dots above and below plot represent nucleotide positions where significantly more activated cassette exons or repressed cassette exons showed binding, compared to unchanged cassette exons ($p < 0.05$, chi-square test). (c) Immunoblot showing the complete loss of full-length FUS/TLS in the *Fus/Tls^{-/-}* mice, accompanied by the presence at low levels of a truncated FUS/TLS protein.

(a) Pie charts showing the distribution of different types of alternative splicing events detected using splicing-sensitive microarrays in adult brain upon ASO-mediated FUS/TLS depletion compared to control ASO treatment (left), and embryonic brain from *Fus/Tls* knockout mice (*Fus/Tls^{-/-}*) mice compared to wild-type mice (right). The types of events are illustrated in the schematic below the pie-charts: alternative 5' and 3' splice site usage, alternative start and end, alternative cassette and twin cassette exons, mutually exclusive exons and retained introns. (b) RNA splicing map correlating FUS/TLS binding sites with splicing regulation. Map showing the fraction of splicing array-detected cassette exons with FUS/TLS CLIP-seq clusters located proximal to exons promoted by FUS/TLS (more excluded upon FUS/TLS depletion) ($n=63$, positive y axis, blue), repressed by FUS/TLS (more included upon FUS/TLS depletion) ($n=114$, negative y axis, red), and unchanged by FUS/TLS ($n=3,664$, reflected on positive and negative y axis, transparent gray). The x axis represents

Supplementary Figure 12 *FUS/TLS and TDP-43-dependent alternative splicing in mouse brain*

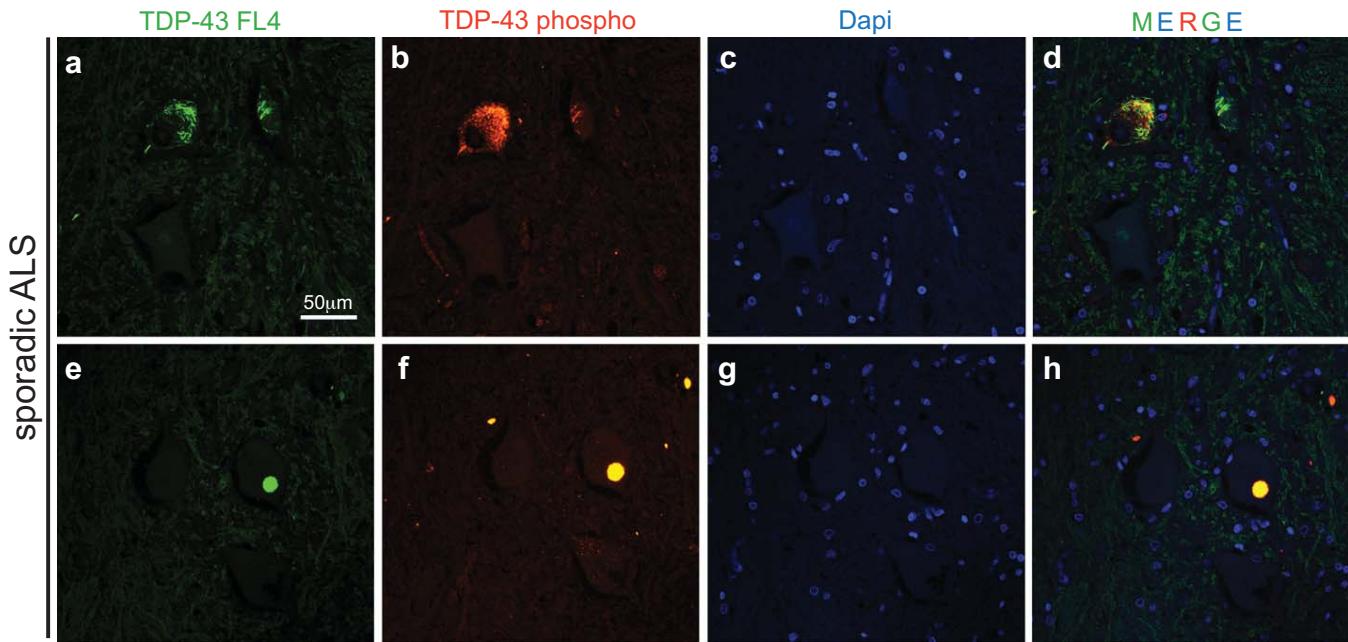
Semi-quantitative RT-PCR validations of splicing events that change only upon FUS/TLS depletion (**a-b**), change in similar direction when either FUS/TLS or TDP43 is depleted (**c-d**), change in opposite directions when FUS/TLS or TDP-43 is depleted (**e-f**), or change only upon TDP-43 depletion

(**g-h**). Alternatively spliced exons are depicted in orange boxes with their flanking constitutive exons in blue boxes. Exon numbers were determined for each gene using specific isoforms as described in the methods. Graphs in panels b, d, f and h show quantification (ratio inclusion to exclusion) of 2-3 biological replicas per group; error bars represent standard deviation.

Supplementary Figure 13 TDP-43 depletion in neurons derived from human iPS cells

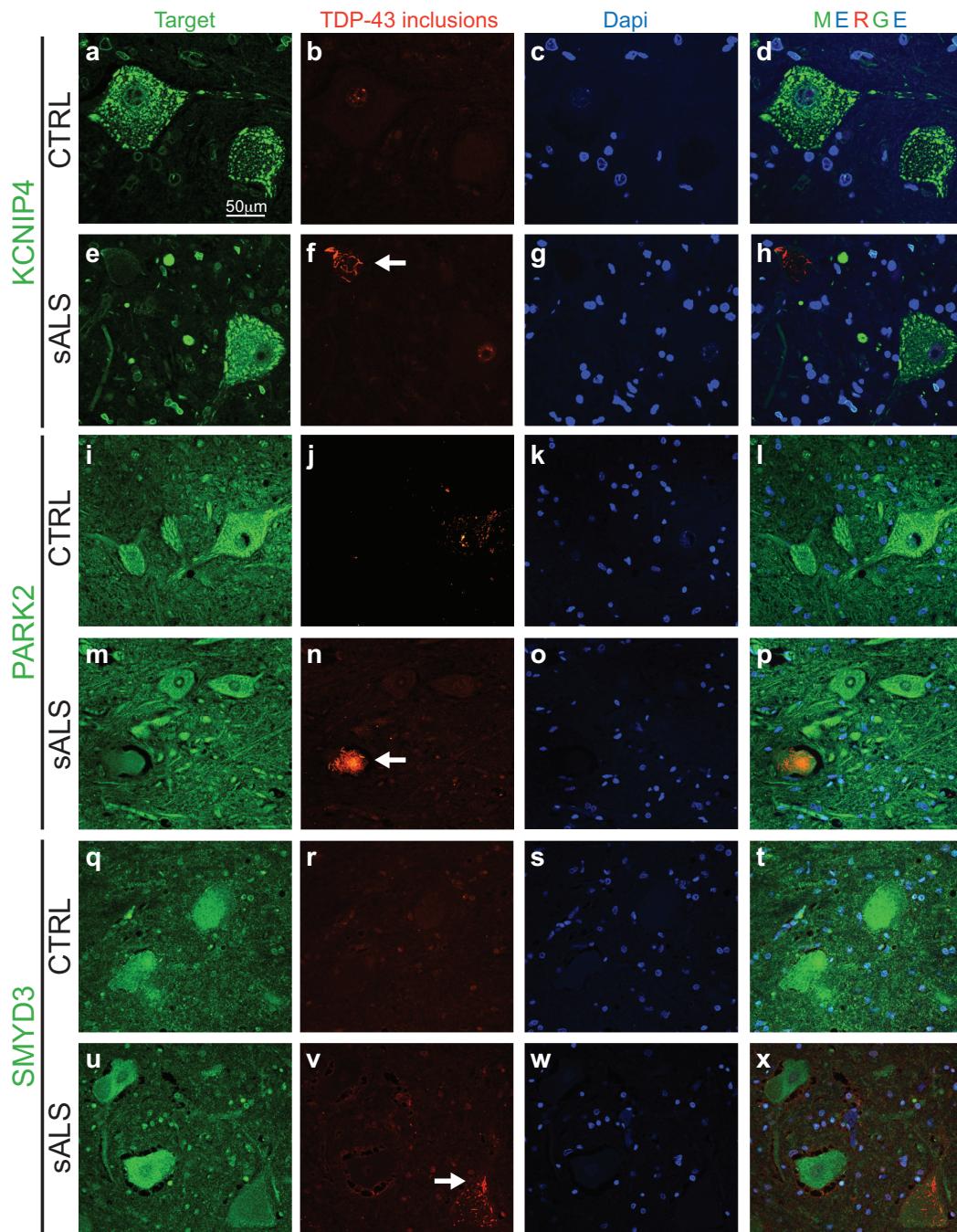
(a) Scheme for generation of induced pluripotent stem cells (hiPSCs) from non-ALS patient fibroblasts, followed by pan-neuronal differentiation to mature neurons and lentiviral-delivered shRNA to TDP-43. **(b)** Quantitative RT-PCR measurement of RNA levels for *TDP-43*, *NRXN3*, *PARK2*, *NLGN1*, *FGF14*, *KCND2* and *EFNA5* after lentiviral transduction to deliver either of two shRNAs to *TDP-43*.

Supplementary Figure 14. The monoclonal anti-TDP-43 antibody FL4 and the phospho-TDP-43 both recognize primarily the TDP-43 inclusions



Double immunofluorescence images from sporadic ALS spinal cord autopsy samples using a monoclonal anti-TDP-43 antibody FL4 (green, **a, e**) and the commercially available rabbit polyclonal Phospho-TDP-43-specific (red, **b, f**). Dapi staining was used to label the nuclei (blue, **c, g**) and the merged images are shown in panels **d** and **h**. The FL4 antibody, which has a C-terminal epitope between amino acids 395 and 414 of TDP-43, recognizes preferentially the TDP-43 inclusions similarly to the Phospho-TDP-43, under the experimental conditions used here.

Supplementary Figure 15. Reduction of TDP-43 and FUS/TLS RNA targets in motor neurons from sporadic ALS patients



Immunofluorescence localization in spinal cord autopsy samples from control, non-ALS individuals (**a-d**, **i-l** and **q-t**) or sporadic ALS (sALS) patients (**e-h**, **m-p** and **u-x**) for TDP-43 inclusions (red, **b**, **f**, **j**, **n**, **r**, **v**) and either KCNIP4 (green, **a**, **e**), PARK2 (green, **i**, **m**) or SMYD3 (green, **q**, **u**). TDP-43 inclusions were labeled with the monoclonal anti-TDP-43 antibody FL4 (**b**, **f**, **r** and **v**) or the commercially available rabbit polyclonal Phospho-TDP-43-specific (**j**, **n**). Dapi staining was used to label the nuclei (blue, **c**, **g**, **k**, **o**, **s** and **w**) and the merged images are shown in panels **d**, **h**, **l**, **p**, **t** and **x**. In both control and sALS motor neurons without TDP-43 aggregation KCNIP4, Parkin and SMYD3 show the expected localization. Neurons bearing TDP-43 inclusions (arrows) have dramatically decreased levels of KCNIP4, PARK2 or SMYD3.

Supplementary Table 1: FUS/TLS binding and regulation on transcripts associated with disease

Gene symbol	Protein	Refseq/mRNA identifier	Number of FUS/TLS CLIP-seq clusters					RNA-seq FUS/TLS KD				Splicing changes
			Total	in 5'UTR	in introns	in exons	in 3'UTR	RPKM in FUS/TLS KD	RPKM in control	Ratio KD/control	Z score	
Adarb1/ADAR2	adenosine deaminase, RNA-specific, B1	NM_001024839	37	0	32	1	4	24.97	25.27	0.99	-0.17	No
Ahi1	Abelson helper integration site 1	BC055400	71	1	58	3	9	20.53	27.43	0.75	-2.84	More inclusion in adult brain with FUS KD (chr10:20778056-20792348)
Als2	Alsin	NM_028717	24	1	22	0	1	5.50	6.04	0.91	-0.54	No
Als4	senataxin	NM_198033	24	11	12	0	8	12.11	11.08	1.09	0.87	No
Ang1	angiogenin	NM_007447	0	0	0	0	0	1.62	0.87	1.87	2.58	No
App	amyloid beta (A4) protein	NM_007471	133	6	119	2	6	235.28	219.73	1.07	0.35	No
Ar	androgen receptor	NM_013476	0	0	0	0	0	2.12	2.48	0.86	-0.58	No
Atxn1	spinocerebellar ataxia 1 homolog	NM_009124	149	0	148	0	1	12.70	22.08	0.58	-5.44	No
Atxn10	spinocerebellar ataxia 10	NM_016843	38	0	32	5	1	34.78	32.47	1.07	0.42	No
Atxn2	spinocerebellar ataxia 2	NM_009125	32	1	26	4	1	16.87	14.92	1.13	1.19	No
Atxn7	spinocerebellar ataxia 7	NM_139227	10	0	6	2	2	5.64	5.64	1.00	0.21	No
Bin1	bridging integrator 1	NM_001083334	31	0	27	2	2	33.77	33.66	1.00	-0.06	More inclusion in adult brain with FUS KD (chr18:32573944-32579496)
C9orf72	Uncharacterized protein C9orf72 homolog	BC076612	3	0	3	0	0	5.95	6.66	0.89	-0.73	No
Cacna1c	calcium channel, voltage-dependent, L type,	NM_009781	482	0	481	0	1	5.07	6.55	0.77	-1.82	No
Chmp2b	chromatin modifying protein 2B	NM_026879	0	0	0	0	0	13.89	12.02	1.16	1.40	No
Dctn1	dynactin 1	NM_007835	20	0	17	3	0	46.53	45.03	1.03	0.09	No
Dmpk	dystrophy myotonica-protein kinase	NM_032418	0	0	0	0	0	1.78	2.64	0.67	-1.96	No
Eip3	elongation protein 3 homolog	NM_028811	2	0	1	1	0	14.94	15.39	0.97	-0.28	No
Ewsr1	Ewing sarcoma breakpoint region 1	NM_007968	26	0	16	0	10	48.53	50.57	0.96	-0.45	More exclusion in embryonic brain with FUS KO (chr11:4979502-4982276)
Fbxo7	F-box only protein 7	NM_153195	4	0	1	2	1	7.35	6.80	1.08	0.81	No
Fgf14	fibroblast growth factor 14 isoform b	NM_207667	489	2	487	0	0	11.08	13.75	0.81	-1.96	No
Fig4	Sac domain-containing inositol phosphatase 3	NM_133999	4	0	4	0	0	8.28	8.15	1.02	0.28	No
Fmr1	fragile X mental retardation protein 1	NM_008031	5	1	3	0	2	17.03	15.76	1.08	0.72	No

Fus	Fus/TLS protein	BC011078	21	19	1	0	20	8.61	102.97	0.08	-18.23	More exclusion in adult brain with FUS KD (chr7:135116284-135117913)
Fxn	Frataxin	NM_008044	0	0	0	0	0	1.08	1.08	1.00	0.30	No
Gria1	glutamate receptor, ionotropic, AMPA1 (alpha 1)	NM_008165	161	1	150	5	5	58.68	69.92	0.84	-1.43	More exclusion in adult brain with FUS KD (chr11:57102997-57131167)
Gria2	glutamate receptor, ionotropic, AMPA2 (alpha 2)	NM_001039195	106	3	62	1	40	99.83	93.18	1.07	0.35	More inclusion in adult brain with FUS KD (chr3:80493273-80495241)
Gria3	glutamate receptor, ionotropic, AMPA3 (alpha	NM_016886	112	4	94	0	14	34.76	38.96	0.89	-0.95	More inclusion in embryonic brain with FUS KO (chrX:39007430-39022677)
Gria4	glutamate receptor, ionotropic, AMPA4 (alpha 4)	NM_019691	142	0	132	1	9	22.22	21.79	1.02	0.13	More inclusion in embryonic brain with FUS KO (chr9:4417896-4480177)
Grik2	glutamate receptor, ionotropic, kainate 2 (beta)	NM_010349	358	0	354	1	3	11.16	13.18	0.85	-1.42	No
Grin1	glutamate receptor, ionotropic, NMDA1 (zeta 1)	AK090286	25	0	15	1	9	74.23	81.79	0.91	-0.86	No
Grin2a	glutamate receptor, ionotropic, NMDA2A (epsilon)	AK086290	262	0	258	2	2	4.49	4.69	0.96	-0.09	No
Grin2b	glutamate receptor, ionotropic, NMDA2B (epsilon)	NM_008171	247	0	242	2	3	19.65	28.92	0.68	-3.75	No
Grin2c	glutamate receptor, ionotropic, NMDA2C (epsilon)	NM_010350	18	0	10	7	1	9.03	10.97	0.82	-1.67	No
Grn	Progranulin	NM_008175	0	0	0	0	0	23.95	20.78	1.15	1.30	No
Hdac6	histone deacetylase 6	NM_010413	1	1	0	0	0	9.64	9.12	1.06	0.64	No
Hdh	Huntington disease gene	NM_010414	44	8	29	0	15	15.82	16.01	0.99	-0.13	No
Ighmbp2	immunoglobulin mu binding protein 2	NM_009212	0	0	0	0	0	2.91	2.91	1.00	0.32	No
Kcnip4	Kv channel interacting protein 4	NM_001199244	818	0	818	0	0	2.04	8.52	0.24	-10.56	More inclusion in adult brain with FUS KD (chr5:48900897-49280772)
Kcnma1	Calcium-activated potassium channel alpha subunit 1 (Calcium- activated potassium channel, subfamily M, alpha subunit 1)	U09383	411	5	403	0	4	16.10	16.09	1.00	-0.02	No
Kif5a	kinesin family member 5A	NM_001039000	17	1	3	2	11	268.98	298.47	0.90	-0.91	No

Kifap3	kinesin-associated protein 3	NM_010629	40	2	32	3	3	47.48	44.15	1.08	0.38	No
Lrrk2	leucine-rich repeat kinase 2	NM_025730	18	2	16	0	0	14.33	13.75	1.04	0.42	No
Mapt	Tau protein	NM_001038609	53	0	46	0	7	103.57	108.24	0.96	-0.47	More inclusion in FUS/TLS adult KD (chr11:104143794-104156172) More inclusion in FUS/TLS embryonic KO (chr11:104171848-104182664)
Mbnl1	muscleblind-like 1	NM_020007	107	3	95	0	9	28.32	26.64	1.06	0.48	No
Mbnl2	muscleblind-like 2	NM_207515	102	2	89	0	11	64.17	57.73	1.11	0.62	No
Mecp2	methyl CpG binding protein 2	NM_010788	15	0	14	0	1	23.26	27.55	0.84	-1.67	No
Mjd/atxn3	Mjd protein.	NM_029705	6	0	5	0	1	8.18	7.98	1.03	0.38	No
Ndrg2	N-myc downstream regulated gene 2	NM_013864	14	0	4	4	6	90.62	95.93	0.94	-0.56	More exclusion in adult brain with FUS KD and in embryonic brain with FUS KO (chr14:52530460-52531140)
Nefh	neurofilament, heavy polypeptide	NM_010904	2	0	0	0	2	11.88	11.30	1.05	0.53	No
Nefl	neurofilament, light polypeptide	NM_010910	2	0	0	0	2	60.86	55.02	1.11	0.59	No
Nefm	neurofilament, medium polypeptide	NM_008691	7	0	0	4	3	80.06	60.68	1.32	1.87	No
Nlgn1	neuroligin 1	NM_138666	667	1	660	2	4	9.16	11.85	0.77	-2.20	No
Nlgn3	neuroligin 3	NM_172932	5	0	1	1	3	21.50	22.38	0.96	-0.45	More exclusion in adult brain with FUS KD and in embryonic brain with FUS KO (chrX:98497770-98502414)
Nrg3	neuregulin 3	NM_008734	754	0	746	1	7	4.30	5.88	0.73	-2.13	No
Nrxn1	neurexin I	NM_020252	839	9	808	0	29	29.01	46.34	0.63	-3.54	More inclusion in adult brain with FUS KD (chr17:91020231-91022759) (chr17:91100245-91103405) (chr17:91103707-91487294) (chr17:91022759-91100083)
Nrxn2	neurexin II	NM_020253	68	1	56	0	11	41.55	42.48	0.98	-0.30	No
Nrxn3	neurexin III	NM_172544	1138	4	1130	0	7	20.70	30.66	0.67	-3.74	No
Optn	optineurin	NM_181848	2	0	2	0	0	5.37	4.87	1.10	1.00	No
Park2	parkin	NM_016694	160	0	160	0	0	0.63	1.91	0.33	-3.76	No
Park7	DJ-1 protein	NM_020569	0	0	0	0	0	14.35	13.24	1.08	0.80	No
Pink1	PTEN induced putative kinase 1	NM_026880	3	0	3	0	0	73.39	73.46	1.00	-0.16	No
Pla2g6	phospholipase A2, group VI	NM_016915	0	0	0	0	0	3.62	4.03	0.90	-0.41	No
Psen1	presenilin 1	NM_008943	11	0	8	2	1	14.94	15.45	0.97	-0.32	No

Psen2	Presenilin-2.	NM_011183	0	0	0	0	0	3.73	3.70	1.01	0.27	No
Slc1a2/Glt1/EAAT2	solute carrier family 1	NM_011393	59	0	49	8	2	50.83	48.61	1.05	0.18	No
Slc1a3/EAAT1	solute carrier family 1	NM_148938	29	4	10	0	17	85.37	80.63	1.06	0.27	No
Slc1a6/EAAT4	solute carrier family 1	NM_009200	2	0	0	1	1	1.04	1.38	0.75	-0.72	No
Smn1	Survival motor neuron protein	BC037436	0	0	0	0	0	6.62	7.24	0.91	-0.56	No
Sncb	synuclein, alpha	AK014472	30	0	29	1	0	41.71	36.65	1.14	0.82	No
Sncb	synuclein, beta	NM_033610	9	0	6	0	3	63.97	57.87	1.11	0.58	No
Sod1	Superoxide dismutase 1	NM_011434	3	0	2	1	0	36.31	31.23	1.16	1.02	No
Sort1	sortilin 1	NM_019972	31	5	13	5	13	69.52	75.18	0.92	-0.72	More exclusion in embryonic brain with FUS KO (chr3:108157159-108159148)
Taf15	TAF15 RNA polymerase II, TATA box binding	NM_027427	29	1	24	0	4	40.27	26.04	1.55	3.13	No
Tbp	TATA box binding protein	NM_013684	6	0	5	0	1	5.22	5.70	0.92	-0.46	More exclusion in adult brain with FUS KD and in embryonic brain with FUS KO (chr17:15650585-15652579)
Tardbp	TAR DNA binding protein	NM_145556	23	8	0	0	19	33.51	39.65	0.85	-1.34	No
Tia1	cytotoxic granule-associated RNA binding protein 1	NM_011585	31	0	20	1	10	19.38	18.20	1.06	0.58	More inclusion in adult brain with FUS KD and in embryonic brain with FUS KO (chr6:86368926-86370317)
Tnrc15/Gigyf2	Tnrc15 protein	NM_146112	46	12	32	0	8	8.99	8.87	1.01	0.28	No
Ubqln1	ubiquilin 1	NM_026842	18	0	10	0	8	43.97	41.46	1.06	0.28	No
Ubqln2	ubiquilin 2	NM_018798	4	0	0	0	4	51.55	53.85	0.96	-0.47	No
Uchl1	ubiquitin carboxy-terminal hydrolase L1	NM_011670	6	0	3	2	1	68.84	60.73	1.13	0.76	No
Vapb	vesicle-associated membrane protein, associated	NM_019806	18	0	10	3	5	27.84	25.40	1.10	0.79	No
Vcp	valosin containing protein	NM_009503	5	0	5	0	0	9.77	9.11	1.07	0.75	No

Supplementary Table 2 Genes downregulated upon FUS/TLS depletion in adult mouse brain

Gene Symbol	Protein	Refseq/mRNA identifier	Number of FUS/TLS CLIP-seq clusters					RNA-seq FUS/TLS KD			
			Total	in 5' UTR	in introns	in exons	in 3' UTR	RPKM in FUS/TLS KD	RPKM in control	Ratio KD/control	Z score
Fus	Fus protein.	BC011078	21	19	1	0	20	8.611	102.974	0.08	-18.226
Kcnip4	Potassium channel interacting protein 4.	DQ148504	818	0	818	0	0	2.036	8.522	0.24	-10.561
Smyd3	SET and MYND domain containing 3	AK087728	219	0	218	0	1	1.692	5.718	0.30	-7.237
Zfp533	Mus musculus 10 days neonate medulla oblongata cDNA, RIKEN full-length enriched library, clone:B830010L13 product:hypothetical U1-like zinc finger/Zinc finger, C2H2 type containing protein, full insert sequence.	BC048543	276	1	275	0	0	4.058	9.923	0.41	-7.162
AK079777	Mus musculus 0 day neonate thymus cDNA, RIKEN full-length enriched library, clone:A430065E24 product:unclassifiable, full insert sequence.	AK079777	2	0	0	2	0	0.526	2.613	0.20	-7.108
Nipa1	non-imprinted in Prader-Willi/Angelman syndrome	NM_153578	12	0	7	1	4	8.299	18.003	0.46	-7.1
Csmd1	Mus musculus adult male hypothalamus cDNA, RIKEN full-length enriched library, clone:A230054E13 product:CUB and Sushi multiple domains 1, full insert sequence.	AK048698	1056	5	1051	0	3	3.884	9.36	0.41	-7.013
Prlr	Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630063N04 product:prolactin receptor, full insert sequence.	AK054381	0	0	0	0	0	0.056	0.787	0.07	-6.53
Tcba1	T-cell lymphoma breakpoint associated target 1	NM_001013411	382	1	381	0	0	7.049	14.143	0.50	-6.132
AK013627	Mus musculus adult male hippocampus cDNA, RIKEN full-length enriched library, clone:2900040C04 product:unclassifiable, full insert sequence.	AK013627	0	0	0	0	0	0.193	1.394	0.14	-5.851
AK020190	Mus musculus adult male corpus striatum cDNA, RIKEN full-length enriched library, clone:7630403G23 product:unclassifiable, full insert sequence.	AK020190	0	0	0	0	0	0.065	0.642	0.10	-5.63
Frmd5	FERM domain-containing protein 5.	AK030883	137	0	137	0	0	6.362	11.813	0.54	-5.45
Atxn1	ataxin 1	NM_009124	149	0	148	0	1	12.701	22.083	0.58	-5.435
AK044106	Mus musculus 10 days neonate cortex cDNA, RIKEN full-length enriched library, clone:A830090N19 product:unclassifiable, full insert sequence.	AK044106	0	0	0	0	0	1.677	4.303	0.39	-5.388
Susd4	sushi domain containing 4	NM_144796	48	1	46	1	0	8.285	14.77	0.56	-5.1
C030017K20Rik	Mus musculus adult male corpus striatum cDNA, RIKEN full-length enriched library, clone:C030017K20 product:unclassifiable, full insert sequence.	AK047723	1	0	0	1	0	0.536	2.115	0.25	-4.966
BC042720	MKIAC1843 protein (Fragment).	AK173273	50	3	39	1	7	15.373	25.553	0.60	-4.942
AK031234	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110004P21 product:unclassifiable, full insert sequence.	AK031234	10	0	8	2	0	2.713	5.787	0.47	-4.936
C030018G13Rik	Uncharacterized protein C2orf21 homolog.	AK043914	26	0	21	3	2	7.617	13.382	0.57	-4.934
Agt	angiotensinogen	NM_007428	0	0	0	0	0	1.93	4.586	0.42	-4.925
AK142681	Mus musculus 10 days lactation, adult female mammary gland cDNA, RIKEN full-length enriched library, clone:D730047O05 product:MSZF33 homolog [Mus musculus], full insert sequence.	AK142681	0	0	0	0	0	7.233	12.444	0.58	-4.871
AK045970	Mus musculus 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4831422N07 product:similar to KRUPPEL-RELATED ZINC FINGER PROTEIN F80-L [Mus musculus], full insert sequence.	AK045970	6	0	4	0	2	20.193	35.546	0.57	-4.867

Traip	TRAF-interacting protein	NM_011634	5	0	5	0	0	3.131	6.322	0.50	-4.787
FuK	Mus musculus mRNA for L-fucose kinase (FuK gene), shorter splice variant.	AK161763	1	0	0	0	1	1.85	4.265	0.43	-4.737
BC094615	Mus musculus cDNA clone IMAGE:30134658.	BC094615	0	0	0	0	0	0.076	0.513	0.15	-4.646
Mal	Adult male stomach cDNA, RIKEN full-length enriched library, clone:2200001M24 product:myelin and lymphocyte protein, T-cell differentiation protein, full insert sequence.	AK019046	7	0	0	1	6	27.604	50.313	0.55	-4.509
Agxt2l1	Mus musculus adult male liver cDNA, RIKEN full-length enriched library, clone:1300019H02 product:similar to ALANINE:GLYOXYLATE AMINOTRANSFERASE 2 HOMOLOG 1, SPLICE FORM 1 [Homo sapiens], full insert sequence.	BC022644	1	0	1	0	0	1.487	3.288	0.45	-4.392
BC019819	Mus musculus activated spleen cDNA, RIKEN full-length enriched library, clone:F830224N14 product:unclassifiable, full insert sequence.	BC019819	0	0	0	0	0	0.935	2.432	0.38	-4.368
Gm1337	hypothetical protein LOC383787	NM_001081971	0	0	0	0	0	18.678	29.193	0.64	-4.329
Tnfrsf25	tumor necrosis factor receptor superfamily,	NM_033042	1	0	1	0	0	0.312	1.374	0.23	-4.315
Hba-a2	hemoglobin alpha, adult chain 2	NM_001083955	0	0	0	0	0	1.037	2.55	0.41	-4.278
Darc	Duffy blood group	NM_010045	2	1	0	1	0	8.75	14.187	0.62	-4.271
mKIAA0054	Mus musculus mRNA for mKIAA0054 protein.	BC060114	27	3	23	1	0	3.956	7.069	0.56	-4.253
Slac3	SH3 and cysteine rich domain 3	NM_177707	2	0	2	0	0	0.363	1.476	0.25	-4.22
Hist1h1c	histone 1, H1c	NM_015786	1	0	0	1	0	6.072	9.938	0.61	-4.089
Clic6	chloride intracellular channel 6	NM_172469	0	0	0	0	0	2.267	4.699	0.48	-4.079
AK048846	Mus musculus adult male diencephalon cDNA, RIKEN full-length enriched library, clone:9330156G04 product:unclassifiable, full insert sequence.	AK048846	7	0	0	7	0	3.429	6.179	0.55	-4.078
Epb4.1	erythrocyte protein band 4.1	BC068138	93	1	57	0	35	7.956	12.576	0.63	-4.052
Peli1	Mus musculus pellino 1 (Peli1) mRNA, complete cds.	AK020915	20	1	17	0	2	8.564	13.42	0.64	-3.986
B230206H07Rik	hypothetical protein LOC320871	NM_177280	0	0	0	0	0	1.348	2.875	0.47	-3.972
Mcam	Cell surface glycoprotein MUC18 precursor (Melanoma-associated antigen MUC18) (Melanoma cell adhesion molecule) (Gicerin).	AB035509	0	0	0	0	0	1.986	4.007	0.50	-3.945
Pip5k1b	phosphatidylinositol-4-phosphate 5-kinase, type	NM_008846	32	0	32	0	0	0.795	2.085	0.38	-3.917
Dnajc1	Mus musculus 11 days embryo whole body cDNA, RIKEN full-length enriched library, clone:2700069B04 product:Dnaj (Hsp40) homolog, subfamily C, member 1, full insert sequence.	BC052544	42	3	37	0	4	1.384	2.902	0.48	-3.895
Npr2	natriuretic peptide receptor 2	BC049896	2	0	2	0	0	4.474	7.506	0.60	-3.889
Col8a2	procollagen, type VIII, alpha 2	NM_199473	0	0	0	0	0	0.383	1.402	0.27	-3.876
BC031853	amino acid transporter	NM_172758	0	0	0	0	0	4.902	8.07	0.61	-3.843
Park2	parkin	NM_016694	160	0	160	0	0	0.633	1.909	0.33	-3.759
Grin2b	glutamate receptor, ionotropic, NMDA2B (epsilon)	NM_008171	247	0	242	2	3	19.645	28.924	0.68	-3.746

Nrxn3	neurexin III	BC060719	1138	4	1130	0	7	20.695	30.662	0.67	-3.737
Selpg	selectin, platelet (p-selectin) ligand	NM_009151	1	0	1	0	0	6.336	9.859	0.64	-3.73
1500015O10Rik	esophageal cancer related gene 4 protein	NM_024283	0	0	0	0	0	0.514	1.66	0.31	-3.684
Plekhn1	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130033N06 product:inferred: hypothetical protein {Homo sapiens}, full insert sequence.	BC046544	0	0	0	0	0	3.32	5.777	0.57	-3.665
Gpsm1	G-protein signalling modulator 1 (AGS3-like, C.)	BC071197	18	2	14	1	1	4.423	7.187	0.62	-3.633
Kcna4	potassium voltage-gated channel, shaker-related	NM_021275	4	0	0	1	3	12.254	17.755	0.69	-3.586
Lrp1b	Mus musculus low density lipoprotein receptor related protein LRP1B/LRP-DIT mRNA, complete cds.	AK035795	819	23	796	0	10	2.861	5.09	0.56	-3.556
Nrxn1	neurexin I	BC047146	839	9	808	0	29	29.006	46.335	0.63	-3.535
Efhd1	EF hand domain containing 1	NM_028889	0	0	0	0	0	6.752	10.048	0.67	-3.484
AK145079	Mus musculus mammary gland RCB-0526 Jyg-MC(A) cDNA, RIKEN full-length enriched library, clone:G830038D20 product:unclassifiable, full insert sequence.	AK145079	0	0	0	0	0	2.572	4.745	0.54	-3.473
9330155M09Rik	hypothetical protein LOC320756	NM_177254	1	0	0	0	1	1.131	2.381	0.48	-3.473
Baiap3	Mus musculus BA11-associated protein 3, mRNA (cDNA clone IMAGE:4220403), partial cds.	AK122358	0	0	0	0	0	1.424	2.776	0.51	-3.459
Efcbp2	neuronal calcium-binding protein 2	NM_054095	0	0	0	0	0	12.969	18.462	0.70	-3.428
Trpm3	transient receptor potential cation channel,	NM_001035241	372	2	365	0	6	5.726	8.767	0.65	-3.397
Frm pd4	FERM and PDZ domain containing 4	NM_001033330	220	0	220	0	0	9.907	14.524	0.68	-3.374
Acta2	actin, alpha 2, smooth muscle, aorta	NM_007392	0	0	0	0	0	1.021	2.208	0.46	-3.371
mKIAA1568	Mus musculus 12 days embryo embryonic body between diaphragm region and neck cDNA, RIKEN full-length enriched library, clone:9430089E08 product:ROUNDABOUT2 PROTEIN (FRAGMENT) homolog [Gallus gallus], full insert sequence.	BC055333	159	6	150	0	8	11.417	16.27	0.70	-3.363
Wdr78	WD repeat domain 78	NM_146254	2	0	1	0	1	1.534	2.873	0.53	-3.284
Tmem28	Tmem28 protein.	BC117535	536	0	535	0	1	7.259	10.463	0.69	-3.262
Klf16	Kruppel-like factor 16	NM_078477	1	0	0	0	1	14.416	20.04	0.72	-3.246
Otx2	orthodenticle homolog 2	BC017609	0	0	0	0	0	0.167	0.658	0.25	-3.228
Alg14	asparagine-linked glycosylation 14 homolog	NM_024178	0	0	0	0	0	1.646	3.006	0.55	-3.22
AK078363	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230303A05 product:similar to U1 SMALL NUCLEAR RIBONUCLEOPROTEIN C (U1-C) [Mus musculus], full insert sequence.	AK078363	32	0	32	0	0	2.806	4.913	0.57	-3.22
Krt18	keratin 18	NM_010664	0	0	0	0	0	0.152	0.594	0.26	-3.205
Pbx1	pre B-cell leukemia transcription factor 1	L27453	276	0	265	1	10	27.2	41.31	0.66	-3.178

Hap1	huntingtin-associated protein 1	NM_010404	5	0	0	1	4	24.572	35.263	0.70	-3.161
Gpr101	G protein-coupled receptor 101	NM_001033360	0	0	0	0	0	0.645	1.715	0.38	-3.157
Lhfpl3	lipoma HMGIC fusion partner-like 3	NM_001081231	105	0	105	0	0	5.51	8.237	0.67	-3.133
Slc24a4	Sodium/potassium/calcium exchanger 4 precursor (Na(+)/K(+)/Ca(2+)-exchange protein 4)	AK044239	13	0	12	0	1	9.287	13.328	0.70	-3.131
Ksr2	Kinase suppressor of Ras 2	DQ531035	19	0	19	0	0	6.763	9.787	0.69	-3.103
Unc13c	unc13 homolog 3	NM_001081153	23	0	22	1	0	17.377	23.971	0.72	-3.102
Cacna1h	calcium channel alpha13.2 subunit	NM_021415	2	0	2	0	0	11.716	16.207	0.72	-3.101
Prelp	proline arginine-rich end leucine-rich repeat	NM_054077	0	0	0	0	0	4.899	7.48	0.65	-3.101
Cd74	CD74 antigen isoform 1	NM_001042605	0	0	0	0	0	1.798	3.168	0.57	-3.089
Dlgap1	discs large homolog-associated protein 1 isoform	AK031410	318	9	306	0	10	22.528	32.303	0.70	-3.084
Kcns2	K+ voltage-gated channel, subfamily S, 2	NM_181317	0	0	0	0	0	6.07	8.923	0.68	-3.075
BC033915	hypothetical protein LOC70661	NM_027498	91	0	91	0	0	17.828	24.58	0.73	-3.072
Lcn2	lipocalin 2	NM_008491	0	0	0	0	0	0.27	0.999	0.27	-3.065
Zmym3	Zmym3 protein.	AK082075	5	0	3	0	2	22.395	31.109	0.72	-3.065
Inha	inhibin alpha	NM_010564	6	1	4	1	0	7.095	10.077	0.70	-3.058
Scube3	signal peptide, CUB domain, EGF-like 3	NM_001004366	0	0	0	0	0	2.107	3.677	0.57	-3.042
Ass1	argininosuccinate synthetase	NR_002687	0	0	0	0	0	6.856	9.73	0.70	-3.013
Arsg	Arylsulfatase G	NM_028710	0	0	0	0	0	4.024	6.183	0.65	-3.013
Tmem16b	Adult male testis cDNA, RIKEN full-length enriched library, clone:4930527E21 product:transmembrane protein 16B, full insert sequence.	AK132944	0	0	0	0	0	1.419	2.62	0.54	-3.011
Ndst4	N-deacetylase/N-sulfotransferase (heparin)	AK140992	0	0	0	0	0	0.2	0.726	0.28	-3.009
Sox12	SRY-box containing gene 12	NM_011438	1	0	0	0	1	4.84	7.294	0.66	-3.007
Enpp2	ectonucleotide pyrophosphatase/phosphodiesterase	AK038940	45	8	29	0	13	31.783	47.113	0.67	-3.006
Zbtb20	zinc finger and BTB domain containing 20	BC056446	244	9	230	0	10	3.775	5.867	0.64	-2.997
Xkr6	X Kell blood group precursor related family	NM_173393	154	1	152	1	0	2.041	3.532	0.58	-2.984
1700029J07Rik	hypothetical protein LOC69479	BC107256	2	2	0	0	0	2.454	4.243	0.58	-2.98

Ache	acetylcholinesterase	AK036259	2	2	0	0	0	9.546	13.409	0.71	-2.975
AK084074	Mus musculus 16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130060K15 product:unclassifiable, full insert sequence.	AK084074	57	0	40	10	7	7.268	10.148	0.72	-2.969
Cpne5	Mus musculus 10 days neonate cortex cDNA, RIKEN full-length enriched library, clone:A830083G22 product:COPINE-LIKE PROTEIN KIAA1599 homolog [Homo sapiens], full insert sequence.	AK147529	0	0	0	0	0	23.656	33.251	0.71	-2.962
BC072620	hypothetical protein LOC237403	NM_001013758	1	0	1	0	0	15.729	21.2	0.74	-2.952
Dbp	D site albumin promoter binding protein	NM_016974	2	0	2	0	0	9.511	13.338	0.71	-2.939
BC002059	hypothetical protein LOC213811	NM_145397	2	0	2	0	0	4.724	7.012	0.67	-2.916
Pcdh9	protocadherin 9	NM_001081377	827	1	824	1	1	18.344	24.774	0.74	-2.907
Peg10	paternally expressed 10 isoform RF1/RF2	NM_130877	0	0	0	0	0	6.374	9.122	0.70	-2.907
Kirrel2	kin of IRRE-like 2	NM_172898	0	0	0	0	0	0.989	1.998	0.49	-2.902
Cntnap2	contactin associated protein-like 2 isoform b	NM_025771	1144	4	1140	0	0	14.096	18.847	0.75	-2.883
AK047676	Mus musculus adult retina cDNA, RIKEN full-length enriched library, clone:A930027I11 product:unclassifiable, full insert sequence.	AK047676	0	0	0	0	0	15.206	20.313	0.75	-2.882
Fa2h	fatty acid 2-hydroxylase	NM_178086	0	0	0	0	0	11.258	15.403	0.73	-2.85
Ahi1	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:1700015F03 product:RIKEN cDNA 1700015F03 gene, full insert sequence.	BC055400	71	1	58	3	9	20.528	27.429	0.75	-2.837
Cep63	centrosomal protein 63	NM_001081122	1	0	0	0	1	9.743	13.514	0.72	-2.835
Ccdc88c	coiled-coil domain containing 88C	NM_026681	2	0	2	0	0	10.975	15.015	0.73	-2.832
Vegf	Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF).	AY263146	5	0	3	0	2	14.837	19.724	0.75	-2.817
Efs	embryonal Fyn-associated substrate	NM_010112	0	0	0	0	0	1.351	2.437	0.55	-2.816
Tshz2	teashirt zinc finger family member 2	AK046877	13	0	13	0	0	2.121	3.545	0.60	-2.803
Dok3	docking protein 3	NM_013739	0	0	0	0	0	2.488	4.148	0.60	-2.795
Nrp1	neuropilin 1	AK082992	3	0	3	0	0	3.374	5.248	0.64	-2.777
U69888	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230105C16 product:Mus musculus lpw gene, exon B, full insert sequence.	U69888	43	0	43	0	0	0.939	1.905	0.49	-2.774
AK144367	Mus musculus 0 day neonate cortex cDNA, RIKEN full-length enriched library, clone:G630041N23 product:unclassifiable, full insert sequence.	AK144367	1	0	1	0	0	2.43	4.045	0.60	-2.771
Chrm4	cholinergic receptor, muscarinic 4	NM_007699	0	0	0	0	0	13.446	17.888	0.75	-2.77
BC048080	Mus musculus 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4833432E10 product:unclassifiable, full insert sequence.	BC048080	0	0	0	0	0	2.168	3.613	0.60	-2.767
Ankrd43	ankyrin repeat domain 43	NM_183173	1	0	0	0	1	24.707	33.81	0.73	-2.749
BC005764	plasticity-related protein 2	NM_181681	0	0	0	0	0	16.711	22.012	0.76	-2.74

Flt1	FMS-like tyrosine kinase 1	AK146906	0	0	0	0	0	6.196	8.744	0.71	-2.738
Ccdc135	coiled-coil domain containing 135	NM_001042715	0	0	0	0	0	0.723	1.68	0.43	-2.734
9030617O03Rik	hypothetical protein LOC217830	AK081256	0	0	0	0	0	1.415	2.486	0.57	-2.732
Slc2a12	solute carrier family 2 (facilitated glucose)	NM_178934	0	0	0	0	0	0.46	1.221	0.38	-2.731
Htr1d	5-hydroxytryptamine (serotonin) receptor 1D	NM_008309	0	0	0	0	0	2.901	4.702	0.62	-2.724
Pkd2l1	polycystic kidney disease 2-like 1	NM_181422	0	0	0	0	0	0.173	0.563	0.31	-2.721
Tacr1	tachykinin receptor 1	NM_009313	0	0	0	0	0	3.92	5.815	0.67	-2.718
Arl4d	ADP-ribosylation factor-like 4D	NM_025404	0	0	0	0	0	16.194	21.378	0.76	-2.716
March4	membrane-associated ring finger (C3HC4) 4	NM_001045533	3	0	3	0	0	7.141	9.792	0.73	-2.712
Dtx3	deltex 3	NM_030714	1	1	0	0	0	14.551	19.124	0.76	-2.697
AK017144	Mus musculus 11 days pregnant adult female ovary and uterus cDNA, RIKEN full-length enriched library, clone:5031434011 product:unclassifiable, full insert sequence.	AK017144	0	0	0	0	0	1.031	1.984	0.52	-2.684
Slc25a12	solute carrier family 25 (mitochondrial carrier,	NM_172436	36	0	32	4	0	19.447	25.573	0.76	-2.677
Grm4	glutamate receptor, metabotropic 4	NM_001013385	71	0	69	1	1	10.625	14.234	0.75	-2.665
A430110N23Rik	hypothetical protein LOC269855	NM_173008	0	0	0	0	0	0.575	1.397	0.41	-2.658
Abhd3	abhydrolase domain containing 3	NM_134130	2	0	1	0	1	8.31	11.24	0.74	-2.657
Wnk4	WNK lysine deficient protein kinase 4	NM_175638	0	0	0	0	0	0.923	1.828	0.50	-2.645
AK005503	Mus musculus adult female placenta cDNA, RIKEN full-length enriched library, clone:1600020E01 product:unclassifiable, full insert sequence.	AK005503	1	0	1	0	0	2.538	4.136	0.61	-2.623
Kif17	kinesin family member 17	NM_010623	4	0	4	0	0	5.976	8.353	0.72	-2.619
Trim72	tripartite motif-containing 72	NM_001079932	0	0	0	0	0	0.167	0.522	0.32	-2.614
Lrrc7	leucine rich repeat containing 7	AK122498	183	0	178	5	0	10.075	13.616	0.74	-2.607
AK161480	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:1700003P12 product:RIKEN cDNA 4933432I09 gene, full insert sequence.	AK161480	0	0	0	0	0	0.456	1.156	0.39	-2.589
AK019348	Mus musculus adult male hippocampus cDNA, RIKEN full-length enriched library, clone:2900042K03 product:unclassifiable, full insert sequence.	AK019348	1	0	0	1	0	2.86	4.518	0.63	-2.579
Doc2b	double C2, beta	NM_007873	0	0	0	0	0	16.888	21.88	0.77	-2.577
Nudt16	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310041H06 product:hypothetical NUDIX hydrolase containing protein, full insert sequence.	AK012920	0	0	0	0	0	2.438	3.928	0.62	-2.57
Rim	Mus musculus partial mRNA for Rim, splice variant 1.	AK090169	365	8	357	0	7	9.82	13.176	0.75	-2.556
Lrrc6	leucine rich repeat containing 6 (testis)	NM_019457	0	0	0	0	0	1.496	2.534	0.59	-2.529

Slc13a4	solute carrier family 13 (sodium/sulfate	AK139428	0	0	0	0	0	0.779	1.691	0.46	-2.524
AK085944	Mus musculus 13 days embryo lung cDNA, RIKEN full-length enriched library, clone:D430020J02 product:similar to ENVELOPE PROTEIN (FRAGMENT) [Friend spleen focus-forming virus], full insert sequence.	AK085944	0	0	0	0	0	1.826	2.93	0.62	-2.521
Micall1	MICAL-like protein 1 (Molecule interacting with Rab13) (MIRab13).	AK031386	2	1	0	0	2	10.286	13.731	0.75	-2.514
1200009O22Rik	hypothetical protein LOC66873	NM_025817	0	0	0	0	0	7.543	10.039	0.75	-2.511
Rxrb	retinoid X receptor beta	M84818	0	0	0	0	0	8.607	11.508	0.75	-2.509
Hes5	hairy and enhancer of split 5	NM_010419	0	0	0	0	0	2.926	4.567	0.64	-2.509
Igf2	insulin-like growth factor 2	NM_010514	0	0	0	0	0	13.299	17.254	0.77	-2.497
AK148126	Mus musculus 7 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:A730084D15 product:unclassifiable, full insert sequence.	AK148126	0	0	0	0	0	0.568	1.343	0.42	-2.481
Rbmx	RNA binding motif protein, X-linked	AK165006	15	0	2	0	13	14.826	19.044	0.78	-2.476
Fgf11	fibroblast growth factor 11	NM_010198	0	0	0	0	0	1.352	2.306	0.59	-2.474
Podxl	podocalyxin-like	NM_013723	0	0	0	0	0	5.062	7.113	0.71	-2.471
Gdf10	growth differentiation factor 10	NM_145741	1	0	0	0	1	0.917	1.798	0.51	-2.471
Jph4	junctophilin 4 isoform a	NM_177049	14	0	4	0	10	57.606	79.164	0.73	-2.465
C030030A07Rik	hypothetical protein LOC654818	NM_001039558	0	0	0	0	0	1.959	3.101	0.63	-2.456
AK080292	Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630034I12 product:unclassifiable, full insert sequence.	AK080292	0	0	0	0	0	2.411	3.835	0.63	-2.454
Shkbp1	Sh3kbp1 binding protein 1	AK160641	0	0	0	0	0	2.366	3.734	0.63	-2.452
Ptprv	protein tyrosine phosphatase, receptor type, V	NM_007955	0	0	0	0	0	4.091	5.865	0.70	-2.45
AK082896	Mus musculus 7 days embryo whole body cDNA, RIKEN full-length enriched library, clone:C430010C01 product:inferred: GLUT4 enhancer factor {Homo sapiens}, full insert sequence.	AK082896	2	0	0	2	0	2.9	4.484	0.65	-2.445
Enox1	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230207J08 product:hypothetical RNA-binding domain, RBD structure containing protein, full insert sequence.	AK045500	210	0	208	1	1	3.781	5.493	0.69	-2.443
Slc10a4	solute carrier family 10 (sodium/bile acid	NM_173403	0	0	0	0	0	1.573	2.6	0.61	-2.435
Me3	malic enzyme 3, NADP(+)-dependent,	AK133593	37	0	32	2	3	4.685	6.593	0.71	-2.426
Pecam1	platelet/endothelial cell adhesion molecule 1	NM_008816	0	0	0	0	0	3.678	5.352	0.69	-2.413
Gpc5	Mus musculus adult male hypothalamus cDNA, RIKEN full-length enriched library, clone:A230034F01 product:glycan 5, full insert sequence.	AK134807	51	0	51	0	0	5.322	7.333	0.73	-2.399
Hist1h2be	histone 1, H2be	NM_178194	0	0	0	0	0	1.213	2.113	0.57	-2.398
Adamts3	a disintegrin-like and metalloprotease	NM_001081401	5	0	4	1	0	6.198	8.432	0.74	-2.397

MMET-1	Mus musculus mRNA for truncated granzyme M, complete cds.	AB015727	0	0	0	0	0	0.234	0.672	0.35	-2.396
Grm7	Mus musculus 10 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:B930030A02 product:glutamate receptor, metabotropic 7, full insert sequence.	AK053447	340	4	332	1	3	12.142	15.64	0.78	-2.394
Dlk1	delta-like 1 homolog	U15980	0	0	0	0	0	0.354	1.014	0.35	-2.394
AK173072	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4932433E03 product:Hypothetical protein GS164B05.1 in chromosome 7 (Fragment) homolog [Homo sapiens], full insert sequence.	AK173072	7	0	7	0	0	5.79	7.919	0.73	-2.387
4932418E24Rik	hypothetical protein LOC329366	NM_177841	0	0	0	0	0	2.066	3.207	0.64	-2.385
Ptprb	protein tyrosine phosphatase, receptor type, B	NM_029928	0	0	0	0	0	2.6	4.046	0.64	-2.382
AK045371	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230107K20 product:unclassifiable, full insert sequence.	AK045371	0	0	0	0	0	2.006	3.125	0.64	-2.376
Phactr1	phosphatase and actin regulator 1 isoform 3	NM_001005748	424	3	421	0	2	94.094	127.652	0.74	-2.371
Gpr83	G protein-coupled receptor 83	NM_010287	0	0	0	0	0	8.747	11.489	0.76	-2.358
4930402H24Rik	hypothetical protein LOC228602	NM_029432	46	0	37	1	8	14.662	18.619	0.79	-2.356
AK041042	Mus musculus adult male aorta and vein cDNA, RIKEN full-length enriched library, clone:A530067O22 product:unclassifiable, full insert sequence.	AK041042	1	0	0	1	0	11.303	14.666	0.77	-2.347
PBX3	Mus musculus transcription factor PBX3a (PBX3) mRNA, complete cds.	AK052017	37	0	36	0	1	7.501	9.814	0.76	-2.34
Syt10	synaptotagmin X	NM_018803	0	0	0	0	0	1.707	2.71	0.63	-2.339
Adamts4	a disintegrin-like and metalloprotease	AK076295	0	0	0	0	0	6.338	8.527	0.74	-2.332
Cygb	cytoglobin	NM_030206	0	0	0	0	0	11.095	14.348	0.77	-2.332
5730469M10Rik	hypothetical protein LOC70564	NM_027464	5	0	0	2	3	17.057	21.55	0.79	-2.332
AK053779	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310015A10 product:unclassifiable, full insert sequence.	AK053779	1	0	1	0	0	2.117	3.241	0.65	-2.331
RP23-198E14.4	Novel RNA polymerase Rpb1 C-terminal repeat domain containing protein.	BC130255	3	0	2	1	0	1.949	3.024	0.64	-2.325
Lrrn2	leucine rich repeat protein 2, neuronal	NM_010732	20	0	20	0	0	18.665	23.781	0.78	-2.325
Lrrtm4	leucine rich repeat transmembrane neuronal 4	NM_178731	418	0	413	2	3	8.968	11.739	0.76	-2.322
Snrk	SNF related kinase	BC094658	39	1	36	2	0	10.166	13.311	0.76	-2.318
Ryr3	Ryr3 protein.	BC116742	102	0	94	0	8	9.02	11.806	0.76	-2.318
Scd1	stearoyl-Coenzyme A desaturase 1	NM_009127	5	0	0	0	5	34.057	45.936	0.74	-2.317
1810041L15Rik	1810041L15Rik protein (Hypothetical protein).	BC120551	1	0	1	0	0	3.779	5.404	0.70	-2.317
Gpr116	G protein-coupled receptor 116	AK173020	0	0	0	0	0	5.525	7.513	0.74	-2.316
Gpr139	G protein-coupled receptor 139	NM_001024138	0	0	0	0	0	0.851	1.717	0.50	-2.313

C1qtnf5	C1q and tumor necrosis factor related protein 5	NM_001040632	0	0	0	0	0	3.27	4.817	0.68	-2.306
Kif13a	kinesin family member 13A	AK220490	17	0	17	0	0	5.178	7.128	0.73	-2.302
Zic1	Zic family member 1	BC060247	8	0	1	1	6	2.764	4.241	0.65	-2.299
BC049805	Mus musculus, clone IMAGE:4481448, mRNA.	BC049805	0	0	0	0	0	5.804	7.851	0.74	-2.298
Fat3	FAT tumor suppressor homolog 3 (Drosophila).	BC117744	57	5	50	0	2	10.1	13.187	0.77	-2.294
Foxj1	forkhead box J1	BC094569	0	0	0	0	0	3.765	5.372	0.70	-2.289
Sbf2	Sbf2 protein (Fragment).	BC015069	14	1	13	0	0	9.565	12.429	0.77	-2.282
Tcf7	Mus musculus 16 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A130029N06 product:transcription factor 7, T-cell specific, full insert sequence.	AK203658	0	0	0	0	0	2.247	3.438	0.65	-2.27
Slco1c1	solute carrier organic anion transporter family,	NM_021471	3	0	2	1	0	10.44	13.552	0.77	-2.266
AK012955	Mus musculus 10, 11 days embryo whole body cDNA, RIKEN full-length enriched library, clone:2810055G20 product:unclassifiable, full insert sequence.	AK012955	156	1	149	0	6	1.935	2.981	0.65	-2.263
ten-m2	Mus musculus mRNA for Ten-m2, complete cds.	AK031198	760	0	760	0	0	8.092	10.525	0.77	-2.261
Aldh5a1	aldehyde dehydrogenase family 5, subfamily A1	NM_172532	2	0	1	1	0	8.125	10.562	0.77	-2.255
AI464131	hypothetical protein LOC329828	NM_001085515	0	0	0	0	0	5.839	7.855	0.74	-2.253
Hist1h1e	histone 1, H1e	NM_015787	0	0	0	0	0	1.541	2.478	0.62	-2.25
AK157795	Mus musculus 9.5 days embryo parthenogenote cDNA, RIKEN full-length enriched library, clone:B130046B21 product:hypothetical protein, full insert sequence.	AK157795	0	0	0	0	0	2.283	3.492	0.65	-2.243
Abcc4	ATP-binding cassette, sub-family C (CFTR/MRP),	NM_001033336	0	0	0	0	0	1.557	2.491	0.63	-2.238
Lphn3	Latrophilin-3 precursor (Lectomedin-3).	BC058992	327	11	313	0	10	10.093	13.078	0.77	-2.238
4933407H18Rik	hypothetical protein LOC71101	NM_001081101	2	1	0	0	1	5.018	6.847	0.73	-2.237
Wbscr27	Williams-Beuren syndrome critical region protein	NM_024479	0	0	0	0	0	2.039	3.098	0.66	-2.233
Rreb1	ras responsive element binding protein 1 isoform	NM_001039188	5	4	1	0	0	7.171	9.394	0.76	-2.23
Cpt1b	carnitine palmitoyltransferase 1b, muscle	AK146851	0	0	0	0	0	0.209	0.559	0.37	-2.22
Ndrg1	N-myc downstream regulated gene 1	NM_008681	0	0	0	0	0	22.464	28.213	0.80	-2.218
Ctnna2	catenin (cadherin associated protein), alpha 2	NM_145732	580	0	579	1	0	15.286	19.128	0.80	-2.214
AK006252	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:1700022021 product:hypothetical KRAB box containing protein, full insert sequence.	AK006252	0	0	0	0	0	3.07	4.573	0.67	-2.213
AK154275	Mus musculus NOD-derived CD11c +ve dendritic cells cDNA, RIKEN full-length enriched library, clone:F630014F13 product:unclassifiable, full insert sequence.	AK154275	1	0	0	1	0	1.406	2.279	0.62	-2.21
Slit3	slit homolog 3	NM_011412	279	0	278	1	0	6.003	8.013	0.75	-2.209

Vegfb	vascular endothelial growth factor B	NM_011697	0	0	0	0	0	9.416	12.115	0.78	-2.203
Spint2	serine protease inhibitor, Kunitz type 2 isoform	NM_011464	0	0	0	0	0	3.661	5.17	0.71	-2.201
BC057022	hypothetical protein LOC433940	NM_001004180	0	0	0	0	0	3.713	5.193	0.72	-2.198
Nlgn1	neuroligin 1	BC098461	667	1	660	2	4	9.161	11.848	0.77	-2.197
Agbl5	carboxypeptidase 5, cytosolic isoform 5	NM_174849	2	2	0	0	0	3.699	5.168	0.72	-2.195
Dcc	Mus musculus 12 days embryo spinal cord cDNA, RIKEN full-length enriched library, clone:C530046D04 product:deleted in colorectal carcinoma, full insert sequence.	AK049746	320	0	318	1	1	7.5	9.687	0.77	-2.195
Rasgrp2	RAS, guanyl releasing protein 2	AK160563	0	0	0	0	0	25.428	32.629	0.78	-2.193
AK083195	Mus musculus 16 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:9630016B09 product:unclassifiable, full insert sequence.	AK083195	44	0	35	0	9	4.037	5.614	0.72	-2.188
Flad1	FAD-synthetase	AK044501	2	0	1	0	1	8.566	11.001	0.78	-2.185
Pogk	pogo transposable element with KRAB domain	NM_175170	0	0	0	0	0	18.258	22.764	0.80	-2.184
Pygo1	pygopus 1	NM_028116	0	0	0	0	0	2.814	4.227	0.67	-2.184
AK039159	Mus musculus adult male hypothalamus cDNA, RIKEN full-length enriched library, clone:A230103J11 product:unclassifiable, full insert sequence.	AK039159	0	0	0	0	0	2.091	3.129	0.67	-2.175
E330018D03Rik	hypothetical protein LOC320319	NM_177133	5	0	0	0	5	8.008	10.336	0.77	-2.172
Myst4	MYST histone acetyltransferase monocytic	NM_017479	73	1	65	0	7	13.46	16.877	0.80	-2.169
Adra2c	adrenergic receptor, alpha 2c	NM_007418	0	0	0	0	0	7.368	9.517	0.77	-2.165
Carf	calcium response factor	NM_139150	3	0	2	0	1	2.834	4.242	0.67	-2.161
Zfp710	zinc finger protein 710	AK154953	1	0	1	0	0	5.784	7.708	0.75	-2.161
Slc39a2	Mus musculus B6-derived CD11 +ve dendritic cells cDNA, RIKEN full-length enriched library, clone:F730005G13 product:similar to ETI-1 PROTEIN (ZINC TRANSPORTER HZIP2) [Homo sapiens], full insert sequence.	AK135117	0	0	0	0	0	3.928	5.479	0.72	-2.159
Mccc2	Adult male testis cDNA, RIKEN full-length enriched library, clone:4930552N12 product:hypothetical protein, full insert sequence.	AK019760	4	0	4	0	0	4.459	6.114	0.73	-2.153
AJ517767	Mus musculus domesticus 129S1 imprinted Meg9 mRNA, partial sequence.	AJ517767	19	0	12	6	1	9.352	11.982	0.78	-2.151
Pcdhb6	protocadherin beta 6	NM_053131	0	0	0	0	0	0.779	1.561	0.50	-2.15
Bcs1l	BCS1-like	NM_025784	0	0	0	0	0	4.154	5.72	0.73	-2.144
AK138915	Mus musculus adult male aorta and vein cDNA, RIKEN full-length enriched library, clone:A530002D02 product:hypothetical Protein kinase/Serine/threonine protein kinase/Tyrosine protein kinase/Protein kinase domain profile/Proline-rich region profile/Protein kinase-like/Myb DNA-binding domain/Serine/threonine protein kinase, active site containing protein, full insert sequence.	AK138915	0	0	0	0	0	0.332	0.864	0.38	-2.143
AK140147	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230314M03 product:hypothetical protein, full insert sequence.	AK140147	0	0	0	0	0	1.558	2.449	0.64	-2.135
Nwd1	NACHT and WD repeat domain containing 1	NM_176940	3	0	0	2	1	12.711	15.963	0.80	-2.132

Nrg3	neuregulin 3	AK138643	754	0	746	1	7	4.3	5.878	0.73	-2.13
Cd4	CD4 antigen	AK040115	0	0	0	0	0	11.254	14.236	0.79	-2.127
BC048612	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930570G19 product:unclassifiable, full insert sequence.	BC048612	12	0	7	0	5	4.973	6.675	0.75	-2.126
AK038386	Mus musculus adult male hypothalamus cDNA, RIKEN full-length enriched library, clone:A230001M10 product:unclassifiable, full insert sequence.	AK038386	0	0	0	0	0	0.457	1.001	0.46	-2.124
Plag1	pleiomorphic adenoma gene 1	NM_019969	0	0	0	0	0	1.012	1.771	0.57	-2.118
Htr1b	5-hydroxytryptamine (serotonin) receptor 1B	NM_010482	0	0	0	0	0	4.794	6.48	0.74	-2.115
Tgfbr3	transforming growth factor, beta receptor III	AK166082	1	0	1	0	0	2.934	4.329	0.68	-2.113
4631426J05Rik	N-acetylgalactosamine 4-sulfate	NM_029935	16	0	16	0	0	12.606	15.746	0.80	-2.107
4930412F15Rik	hypothetical protein LOC242408	AK076680	0	0	0	0	0	0.338	0.867	0.39	-2.105
Smpd3	sphingomyelin phosphodiesterase 3, neutral	BC046980	7	0	6	0	1	29.286	38.56	0.76	-2.104
Npas4	neuronal PAS domain protein 4	NM_153553	0	0	0	0	0	6.29	8.251	0.76	-2.101
Ccdc117	coiled-coil domain containing 117	NM_134033	0	0	0	0	0	4.057	5.573	0.73	-2.096
TrkC	Mus musculus 0 day neonate kidney cDNA, RIKEN full-length enriched library, clone:D630004O17 product:neurotrophic tyrosine kinase, receptor, type 3, full insert sequence.	AK164887	184	8	174	0	7	6.974	9.057	0.77	-2.096
Zfp521	zinc finger protein 521 isoform 1	NM_145492	118	0	118	0	0	2.834	4.197	0.68	-2.095
Tpst1	protein-tyrosine sulfotransferase 1	NM_013837	2	0	2	0	0	10.44	13.318	0.78	-2.094
Lbp	Mus musculus 6 days neonate spleen cDNA, RIKEN full-length enriched library, clone:F420002K21 product:lipopolysaccharide binding protein, full insert sequence.	AK158105	0	0	0	0	0	0.553	1.176	0.47	-2.089
Myl9	Myosin regulatory light chain 2, smooth muscle isoform (Myosin RLC) (Myosin regulatory light chain 9).	BC055439	0	0	0	0	0	2.861	4.23	0.68	-2.089
2600009E05Rik	hypothetical protein LOC77006	NM_029832	5	0	5	0	0	13.66	16.974	0.80	-2.088
Akp2	alkaline phosphatase 2, liver	NM_007431	0	0	0	0	0	0.858	1.644	0.52	-2.087
Tgfa	transforming growth factor alpha	NM_031199	0	0	0	0	0	20.613	25.422	0.81	-2.083
Trip6	thyroid receptor-interacting protein 6	NM_011639	0	0	0	0	0	0.666	1.353	0.49	-2.079
Indo	indoleamine-pyrrole 2,3 dioxygenase	NM_008324	0	0	0	0	0	5.159	6.901	0.75	-2.079
Gabrb1	gamma-aminobutyric acid (GABA-A) receptor,	NM_008069	102	0	98	3	1	4.648	6.261	0.74	-2.074
AK048739	Mus musculus adult retina cDNA, RIKEN full-length enriched library, clone:A930011G23 product:hypothetical protein, full insert sequence.	AK048739	43	0	40	1	2	0.83	1.601	0.52	-2.073
Erf	Ets2 repressor factor	NM_010155	1	0	1	0	0	21.443	26.446	0.81	-2.073
Adck2	aarF domain containing kinase 2	NM_178873	2	0	2	0	0	6.178	8.089	0.76	-2.068

Epas1	endothelial PAS domain protein 1	NM_010137	1	0	1	0	0	18.462	22.845	0.81	-2.068
Gpr37	G protein-coupled receptor 37	NM_010338	0	0	0	0	0	12.858	15.971	0.81	-2.055
Rad9b	3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630082N15 product:hypothetical protein, full insert sequence.	AK042331	1	0	0	0	1	0.651	1.322	0.49	-2.054
Cdk10	Mus musculus 8 days embryo whole body cDNA, RIKEN full-length enriched library, clone:5730522O06 product:cyclin-dependent kinase (CDC2-like) 10, full insert sequence.	BC128325	12	1	11	0	0	4.738	6.364	0.74	-2.051
1110029E03Rik	hypothetical protein LOC242406	AK170117	3	0	1	1	1	15.764	19.401	0.81	-2.05
Gpr6	G protein-coupled receptor 6	AK139367	0	0	0	0	0	12.346	15.336	0.81	-2.048
Kif27	kinesin family member 27	NM_175214	0	0	0	0	0	1.596	2.459	0.65	-2.045
Drd1a	dopamine receptor D1A	NM_010076	0	0	0	0	0	38.806	50.33	0.77	-2.043
AK140390	Mus musculus 4 days neonate thymus cDNA, RIKEN full-length enriched library, clone:B630019P21 product:hypothetical Zn-finger-like, PHD finger/Proline-rich region profile/Cysteine-rich region profile/FYVE/PHD zinc finger containing protein, full insert sequence.	AK140390	8	2	4	2	0	12.982	16.088	0.81	-2.043
Htr2c	5-hydroxytryptamine (serotonin) receptor 2C	BC098327	25	1	19	0	5	14.035	17.313	0.81	-2.04
Gng7	guanine nucleotide binding protein (G protein),	NM_001038655	18	0	17	0	1	149.227	193.433	0.77	-2.039
AK133324	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4932433E03 product:Hypothetical protein GS164B05.1 in chromosome 7 (Fragment) homolog [Homo sapiens], full insert sequence.	AK133324	1	0	0	0	1	6.831	8.825	0.77	-2.036
Slc6a11	gamma-aminobutyric acid (GABA-A) transporter 4	NM_172890	5	0	0	0	5	25.243	31.82	0.79	-2.035
6330514A18Rik	hypothetical protein LOC216166	BC099679	2	0	0	2	0	3.875	5.322	0.73	-2.033
Galnt13	UDP-N-acetyl-alpha-D-galactosamine:polypeptide	AK030726	156	0	150	3	3	10.325	13.089	0.79	-2.032
Ilih3	inter-alpha trypsin inhibitor, heavy chain 3	NM_008407	0	0	0	0	0	3.209	4.614	0.70	-2.032
Ligl1	lethal giant larvae homolog	NM_008502	1	0	1	0	0	8.434	10.633	0.79	-2.031
Cgnl1	Adult male testis cDNA, RIKEN full-length enriched library, clone:1700047G11 product:hypothetical Myosin tail containing protein, full insert sequence (Cgnl1 protein).	AK018850	1	0	1	0	0	3.589	5.006	0.72	-2.031
Clcn1	Mus musculus adult male bone cDNA, RIKEN full-length enriched library, clone:9830168O13 product:CHLORIDE CHANNEL PROTEIN, SKELETAL MUSCLE (CHLORIDE CHANNEL PROTEIN 1) (CLC-1), full insert sequence.	AY046404	2	0	2	0	0	0.227	0.564	0.40	-2.029
Nr2f6	Mus musculus ES cells cDNA, RIKEN full-length enriched library, clone:2410017K09 product:nuclear receptor subfamily 2, group F, member 6, full insert sequence.	AK216379	0	0	0	0	0	2.816	4.128	0.68	-2.028
Calm14	17 days embryo kidney cDNA, RIKEN full-length enriched library, clone:f920038P21 product:calmodulin-like 4, full insert sequence.	AK146656	0	0	0	0	0	0.242	0.601	0.40	-2.026
NR_002167	Mus musculus 10 days neonate olfactory brain cDNA, RIKEN full-length enriched library, clone:E530001F21 product:hypothetical Homeobox domain containing protein, full insert sequence.	NR_002167	0	0	0	0	0	0.706	1.409	0.50	-2.025
mKIAA0326	Mus musculus 13 days embryo forelimb cDNA, RIKEN full-length enriched library, clone:5930419A17 product:KIAA0326 PROTEIN (FRAGMENT) homolog [Homo sapiens], full insert sequence.	AK079665	0	0	0	0	0	5.108	6.777	0.75	-2.016
H1fx	H1 histone family, member X	NM_198622	0	0	0	0	0	6.719	8.683	0.77	-2.015

Cxcl12	stromal cell derived factor 1 isoform beta	NM_013655	0	0	0	0	0	9.011	11.364	0.79	-2.014
BC068157	hypothetical protein LOC73072	NM_207203	1	0	0	0	1	4.77	6.364	0.75	-2.014
2700045P11Rik	11 days embryo whole body cDNA, RIKEN full-length enriched library, clone:2700045P11 product:hypothetical protein, full insert sequence.	AK012380	91	0	90	1	0	15.551	19.058	0.82	-2.012
Nab2	Ngfi-A binding protein 2	NM_008668	0	0	0	0	0	9.959	12.618	0.79	-2.011
Hemk1	Mus musculus 2 days pregnant adult female ovary cDNA, RIKEN full-length enriched library, clone:E330026G11 product:weakly similar to HEMK PROTEIN HOMOLOG (EC 2.1.1.-) (M.HSAHEMKP) [Homo sapiens], full insert sequence.	AK054445	3	0	1	1	1	3.38	4.759	0.71	-2.01
Acvr1	activin A receptor, type II-like 1	AK160915	0	0	0	0	0	5.875	7.672	0.77	-2.007
Tmem86b	hypothetical protein LOC68255	NM_023440	1	0	0	1	0	2.15	3.137	0.69	-2.007
Pygm	muscle glycogen phosphorylase	NM_011224	0	0	0	0	0	4.29	5.781	0.74	-2.006
Dennd1a	Mus musculus in vitro fertilized eggs cDNA, RIKEN full-length enriched library, clone:7420473K21 product:hypothetical dDENN domain/DENN (AEX-3) domain containing protein, full insert sequence.	AK220407	70	0	70	0	0	9.873	12.493	0.79	-2.004
Ajap1	adherens junction associated protein 1	NM_001099299	14	0	14	0	0	9.115	11.483	0.79	-2.002
Zswim6	Zinc finger SWIM domain-containing protein 6 (Fragment).	AK037945	106	1	105	0	0	11.295	14.095	0.80	-2
Atp2b3	Atp2b3 protein.	BC118976	34	0	25	7	2	16.163	19.76	0.82	-1.996
Vwf	Mus musculus von Willebrand factor mRNA, complete cds.	AK044921	0	0	0	0	0	1.625	2.481	0.65	-1.994
Lrrc4c	leucine rich repeat containing 4C	NM_178725	348	6	341	0	2	24.878	31.223	0.80	-1.994
Rgs9	regulator of G-protein signaling 9	AF011358	42	0	29	0	13	55.938	72.023	0.78	-1.99
Cd59a	CD59a antigen	NM_007652	1	0	0	1	0	1.644	2.507	0.66	-1.99
Bai3	brain-specific angiogenesis inhibitor 3	BC079670	545	3	540	0	2	15.887	19.408	0.82	-1.987
Kcnq3	potassium voltage-gated channel, subfamily G,	NM_153512	0	0	0	0	0	2.214	3.242	0.68	-1.985
6430571L13Rik	hypothetical protein LOC235599	NM_175486	2	0	1	0	1	1.183	1.945	0.61	-1.985
Phf2011	PHD finger protein 20-like 1	BC052212	48	14	33	0	11	9.541	11.982	0.80	-1.982
Zchc12	zinc finger, CCHC domain containing 12	NM_028325	3	1	1	0	1	19.18	23.564	0.81	-1.982
Lingo2	leucine rich repeat and Ig domain containing 2	AK141568	371	1	370	0	0	2.462	3.586	0.69	-1.982
AK032180	Mus musculus adult male olfactory brain cDNA, RIKEN full-length enriched library, clone:6430407N19 product:unclassifiable, full insert sequence.	AK032180	18	0	15	3	0	7.243	9.218	0.79	-1.977
Drd2	dopamine receptor 2	NM_010077	0	0	0	0	0	27.203	33.926	0.80	-1.976
Grm1	glutamate receptor, metabotropic 1	NM_016976	111	0	109	2	0	8.592	10.794	0.80	-1.975

Fbxo10	Mus musculus 13 days embryo lung cDNA, RIKEN full-length enriched library, clone:D430034C13 product:F-box only protein 10, full insert sequence.	AK150292	1	0	1	0	0	5.78	7.51	0.77	-1.97
Kcnq3	potassium voltage-gated channel, subfamily Q,	NM_152923	170	0	170	0	0	11.546	14.378	0.80	-1.968
2700038N03Rik	Ufm1-specific protease 1	NM_027356	0	0	0	0	0	1.911	2.805	0.68	-1.967
Coasy	Coenzyme A synthase	BC064753	1	0	0	0	1	3.392	4.746	0.71	-1.967
Lass1	longevity assurance homolog 1	NM_138647	6	0	4	1	1	19.517	23.879	0.82	-1.965
Pipox	pipecolic acid oxidase	NM_008952	0	0	0	0	0	1.072	1.802	0.59	-1.963
H2-DMa	histocompatibility 2, class II, locus DMA	NM_010386	1	1	0	0	0	2.679	3.888	0.69	-1.962
Dmpk	dystrophia myotonica-protein kinase	BC075715	0	0	0	0	0	1.778	2.644	0.67	-1.962

Supplementary Table 3 Genes upregulated upon FUS/TLS depletion in adult mouse brain

Gene Symbol	Protein	Refseq/mRNA identifier	Number of FUS/TLS CLIP-seq clusters					RNA-seq FUS/TLS KD			
			Total	in 5' UTR	in introns	in exons	in 3' UTR	RPKM in FUS/TLS KD	RPKM in control	Ratio KD/control	Z score
Cbln4	cerebellin 4 precursor	NM_175631	0	0	0	0	0	5.413	2.503	2.16	5.287
Kcnab3	potassium voltage-gated channel, shaker-related	NM_010599	1	0	1	0	0	13.377	7.571	1.77	5.191
H3f3a	H3 histone, family 3A	NM_008210	2	0	2	0	0	5.345	2.75	1.94	4.586
NR_002851	NR_002851	NR_002851	1	0	0	1	0	13.081	7.981	1.64	4.511
CO30019l05Rik	hypothetical protein LOC320116	NM_177075	2	0	0	1	1	5.135	2.8	1.83	4.21
Uchl5	ubiquitin carboxyl-terminal esterase L5	AK007860	0	0	0	0	0	7.894	4.815	1.64	4.178
Rps12	ribosomal protein S12	NM_011295	6	0	0	0	6	19.171	12.664	1.51	4.046
Prdm8	PR domain containing 8	NM_029947	0	0	0	0	0	6.029	3.618	1.67	3.962
Cbln2	cerebellin 2 precursor protein	AK076174	1	0	0	1	0	8.867	5.769	1.54	3.763
AK007998	Mus musculus adult male small intestine cDNA, RIKEN full-length enriched library, clone:2010001A14 product:unclassifiable, full insert sequence.	AK007998	0	0	0	0	0	5.76	3.501	1.65	3.753
AK043581	Mus musculus 10 days neonate cortex cDNA, RIKEN full-length enriched library, clone:A830010B16 product:unclassifiable, full insert sequence.	AK043581	0	0	0	0	0	10.823	7.315	1.48	3.667
D0H4S114	neuronal protein 3.1	NM_053078	26	0	23	0	3	23.716	16.134	1.47	3.662
AF357376	AF357376	AF357376	0	0	0	0	0	6.446	4.14	1.56	3.58
Jun	Jun oncogene	NM_010591	0	0	0	0	0	16.222	11.241	1.44	3.519
Serpib8	serine (or cysteine) proteinase inhibitor, clade	AK048230	0	0	0	0	0	3.875	2.295	1.69	3.451
Npy	neuropeptide Y	NM_023456	0	0	0	0	0	30.491	20.924	1.46	3.439
Ptprk	protein tyrosine phosphatase, receptor type, K	AK083006	51	0	51	0	0	8.357	5.652	1.48	3.373
Cox7c	cytochrome c oxidase, subunit VIIc	NM_007749	5	0	5	0	0	15.911	11.268	1.41	3.321
AK154184	Mus musculus NOD-derived CD11c +ve dendritic cells cDNA, RIKEN full-length enriched library, clone:F630007H21 product:unclassifiable, full insert sequence.	AK154184	0	0	0	0	0	5.474	3.513	1.56	3.31
Igf1	Mus musculus insulin-like growth factor 1 mRNA, complete cds.	X04480	0	0	0	0	0	2.656	1.564	1.70	3.31
Atp5k	ATP synthase, H+ transporting, mitochondrial	NM_007507	0	0	0	0	0	16.084	11.395	1.41	3.309
Atox1	antioxidant protein 1	NM_009720	0	0	0	0	0	13.219	9.249	1.43	3.288
Gadd45a	growth arrest and DNA-damage-inducible 45 alpha	NM_007836	0	0	0	0	0	4.29	2.593	1.65	3.222

Rps15a	ribosomal protein S15a	NM_170669	5	0	0	0	5	10.101	7.287	1.39	3.164
Lsm11	U7 snRNA-associated Sm-like protein Lsm11	NM_028185	0	0	0	0	0	7.283	4.973	1.46	3.129
Taf15	TAF15 RNA polymerase II, TATA box binding	BC043716	29	1	24	0	4	40.266	26.043	1.55	3.127
Stac2	SH3 and cysteine rich domain 2	NM_146028	0	0	0	0	0	27.152	19.469	1.39	3.113
Cstb	cystatin B	NM_007793	0	0	0	0	0	17.755	12.848	1.38	3.104
Rpl34	ribosomal protein L34	NM_026724	0	0	0	0	0	4.455	2.743	1.62	3.094
Ptn	Mus musculus adult male olfactory brain cDNA, RIKEN full-length enriched library, clone:6430584E03 product:pleiotrophin, full insert sequence.	AK161964	2	0	0	2	0	29.856	21.351	1.40	3.082
BC085508	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930481A15 product:unclassifiable, full insert sequence.	BC085508	0	0	0	0	0	2.281	1.334	1.71	3.073
AK003573	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110008H02 product:unclassifiable, full insert sequence.	AK003573	2	0	2	0	0	5.047	3.305	1.53	3.062
AK086534	Mus musculus 15 days embryo head cDNA, RIKEN full-length enriched library, clone:D930035P11 product:unclassifiable, full insert sequence.	AK086534	0	0	0	0	0	19.306	14.062	1.37	3.042
Gsn	gelsolin	AK166831	0	0	0	0	0	21.473	15.668	1.37	3.038
Acyp1	18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110050B14 product:acylphosphatase 1, erythrocyte (common) type, full insert sequence.	AK027969	0	0	0	0	0	4.839	3.173	1.53	3.029
Chuk	conserved helix-loop-helix ubiquitous kinase	NM_007700	23	0	20	0	3	12.337	8.919	1.38	3.028
Tmem145	hypothetical protein LOC330485	NM_183311	1	0	0	1	0	7.93	5.598	1.42	3.026
Rps20	ribosomal protein S20	NM_026147	1	0	1	0	0	11.6	8.385	1.38	3.017
BC056174	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230307C23 product:similar to KRUPPEL-RELATED ZINC FINGER PROTEIN F80-L [Mus musculus], full insert sequence.	BC056174	1	0	1	0	0	3.583	2.292	1.56	3.005
Acsf5	acyl-CoA synthetase long-chain family member 5	NM_027976	1	0	1	0	0	9.41	6.835	1.38	2.963
Ms4a7	membrane-spanning 4-domains, subfamily A, member	NM_001025610	0	0	0	0	0	2.271	1.359	1.67	2.958
Npnt	nephronectin isoform b	NM_001029836	0	0	0	0	0	4.212	2.665	1.58	2.951
AK185737	Mus musculus 9 days embryo whole body cDNA, RIKEN full-length enriched library, clone:D030013I16 product:Phosphatidylserine decarboxylase proenzyme (EC 4.1.1.65) [Contains: Phosphatidylserine decarboxylase alpha chain; Phosphatidylserine decarboxylase beta chain] homolog [Mus musculus], full insert sequence.	AK185737	15	1	13	0	1	12.65	9.266	1.37	2.936
Rpl39	ribosomal protein L39	NM_026055	0	0	0	0	0	5.947	4.178	1.42	2.925
Jundm2	Jun dimerization protein 2	NM_030887	19	0	19	0	0	9.739	7.216	1.35	2.924
Acaa1a	acetyl-Coenzyme A acyltransferase 1	NM_130864	4	0	3	0	1	5.772	4.022	1.44	2.916
1110001J03Rik	hypothetical protein LOC66117	NM_025363	1	0	0	1	0	5.847	4.081	1.43	2.914
Snrf	Small nuclear ribonucleoprotein F (snRNP-F) (Sm protein F) (Sm-F) (SmF)	AK008240	2	0	2	0	0	3.073	2.017	1.52	2.906

Rnaseh2c	AYP1 protein	NM_026616	1	0	1	0	0	4.786	3.116	1.54	2.903
Slco1b2	solute carrier organic anion transporter family,	NM_178235	0	0	0	0	0	0.545	0.208	2.62	2.862
Cd48	2 days neonate thymus thymic cells cDNA, RIKEN full-length enriched library, clone:E430002H24 product:CD48 antigen, full insert sequence.	AK088027	0	0	0	0	0	3.603	2.365	1.52	2.837
Atp6v0c	ATPase, H ⁺ transporting, lysosomal V0 subunit C	AK200049	1	0	0	0	1	8.158	5.905	1.38	2.832
Gm561	hypothetical protein LOC228715	NM_001033297	0	0	0	0	0	9.244	6.799	1.36	2.818
Ndufa6	NADH dehydrogenase (ubiquinone) 1 alpha	NM_025987	5	0	1	2	2	20.295	15.256	1.33	2.802
1810022K09Rik	hypothetical protein LOC69126	BC045157	3	0	1	0	2	4.997	3.418	1.46	2.796
Tuba1a	tubulin, alpha 1	NM_011653	1	0	1	0	0	32.962	23.588	1.40	2.782
Snapc5	small nuclear RNA activating complex,	NM_183316	0	0	0	0	0	12.916	9.569	1.35	2.777
Prdx1	peroxiredoxin 1	NM_011034	2	0	1	0	1	27.95	20.744	1.35	2.752
AK009175	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310005L22 product:unclassifiable, full insert sequence.	AK009175	7	0	4	3	0	48.229	32.485	1.48	2.752
Pafah1b3	platelet-activating factor acetylhydrolase,	NM_008776	0	0	0	0	0	2.298	1.447	1.59	2.741
Bphl	biphenyl hydrolase-like (serine hydrolase,	NM_026512	3	0	1	0	2	7.765	5.683	1.37	2.741
Satb2	special AT-rich sequence binding protein 2	NM_139146	7	0	7	0	0	12.901	9.602	1.34	2.735
Mrps18c	2 days neonate thymus thymic cells cDNA, RIKEN full-length enriched library, clone:E430010G06 product:similar to MITOCHONDRIAL 28S RIBOSOMAL PROTEIN S18-1 (MRP-S18-1).	AK088290	0	0	0	0	0	8.187	6.017	1.36	2.733
Krt9	keratin complex 1, acidic, gene 9	NM_201255	0	0	0	0	0	19.769	14.944	1.32	2.729
Cirbp	cold inducible RNA binding protein	NM_007705	0	0	0	0	0	13.812	10.251	1.35	2.729
AI851790	Mus musculus adult male medulla oblongata cDNA, RIKEN full-length enriched library, clone:6330575M02 product:inferred: unnamed protein product {Macaca fascicularis}, full insert sequence.	AK140763	155	0	155	0	0	8.085	5.944	1.36	2.686
Pdlim2	16 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A130059H06 product:PDZ and LIM domain 2, full insert sequence.	AK137991	0	0	0	0	0	7.346	5.389	1.36	2.677
Rheb	RAS-homolog enriched in brain	NM_053075	24	1	21	1	1	19.579	14.889	1.31	2.67
Cd84	CD84 antigen	AK171067	0	0	0	0	0	5.26	3.694	1.42	2.659
AK021075	Mus musculus adult male corpus striatum cDNA, RIKEN full-length enriched library, clone:C030013G03 product:unclassifiable, full insert sequence.	AK021075	0	0	0	0	0	1.843	1.076	1.71	2.648
Schip1	TIB-55 BB88 cDNA, RIKEN full-length enriched library, clone:I730046J16 product:schwannomin interacting protein 1, full insert sequence (17 days embryo stomach cDNA, RIKEN full-length enriched library, clone:I920076J17 product:schwannomin interacting protein 1, full insert sequence).	AK083464	92	1	89	0	2	27.135	20.392	1.33	2.648
OTTMUSG00000000971	extracellular proteinase inhibitor family	NM_001081957	0	0	0	0	0	1.379	0.694	1.99	2.64
Zbtb16	zinc finger and BTB domain containing 16	AK040211	89	0	87	2	0	7.894	5.837	1.35	2.638

Ly9	lymphocyte antigen 9	NM_008534	0	0	0	0	0	4.361	2.922	1.49	2.636
Mical2	flavoprotein oxidoreductase MICAL2	AK220353	73	2	64	0	9	42.794	29.45	1.45	2.628
Dusp4	dual specificity phosphatase 4	NM_176933	0	0	0	0	0	1.926	1.168	1.65	2.617
2610204K14Rik	hypothetical protein LOC67148	NM_025997	0	0	0	0	0	8.025	5.952	1.35	2.615
Mkx	mohawk	NM_177595	7	0	4	0	3	4.476	3.039	1.47	2.613
Tmed2	transmembrane emp24 domain trafficking protein	NM_019770	1	0	0	0	1	2.944	2.023	1.46	2.609
Dbpht2	DNA binding protein with his-thr domain	NM_198866	0	0	0	0	0	21.267	16.195	1.31	2.604
Nppc	natriuretic peptide precursor type C	NM_010933	0	0	0	0	0	1.911	1.164	1.64	2.6
1110032A04Rik	hypothetical protein LOC66183	NM_133675	0	0	0	0	0	1.625	0.864	1.88	2.596
Rps21	ribosomal protein S21	NM_025587	0	0	0	0	0	7.997	5.952	1.34	2.59
Ang	angiogenin, ribonuclease, RNase A family, 5	NM_007447	0	0	0	0	0	1.622	0.868	1.87	2.581
Bdnf	brain derived neurotrophic factor isoform 1	NM_007540	2	0	1	0	1	3.972	2.7	1.47	2.576
AK087905	Mus musculus adult male urinary bladder cDNA, RIKEN full-length enriched library, clone:9530021D13 product:unclassifiable, full insert sequence.	AK087905	2	0	0	0	2	9.764	7.52	1.30	2.566
Lrrc55	leucine rich repeat containing 55	NM_001033346	0	0	0	0	0	8.964	6.775	1.32	2.565
A930001M12Rik	hypothetical protein LOC320500	NM_177175	0	0	0	0	0	2.457	1.621	1.52	2.563
Cox7b	cytochrome c oxidase subunit VIIb	NM_025379	6	0	4	2	0	29.577	22.375	1.32	2.544
Gm1673	hypothetical protein LOC381633	BC100514	0	0	0	0	0	3.754	2.584	1.45	2.539
AK038337	Mus musculus 16 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A130096F13 product:unclassifiable, full insert sequence.	AK038337	0	0	0	0	0	0.715	0.31	2.31	2.529
AK137397	Mus musculus 7 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:A730034A17 product:weakly similar to ARL-6 INTERACTING PROTEIN-1 (AIP-1) [Homo sapiens], full insert sequence.	AK137397	0	0	0	0	0	4.473	3.073	1.46	2.527
Lgals1	lectin, galactose binding, soluble 1	NM_008495	0	0	0	0	0	4.727	3.335	1.42	2.522
BC052055	Mus musculus 12 days embryo spinal ganglion cDNA, RIKEN full-length enriched library, clone:D130001K13 product:hypothetical protein, full insert sequence.	BC052055	3	2	1	0	0	7.286	5.451	1.34	2.519
Lxn	latexin	NM_016753	0	0	0	0	0	15.329	11.812	1.30	2.515
Prei4	Mus musculus adult male tongue cDNA, RIKEN full-length enriched library, clone:2310004G06 product:weakly similar to KIAA1434 PROTEIN (FRAGMENT) [Homo sapiens], full insert sequence.	AK009137	35	2	28	0	6	30.251	22.86	1.32	2.514
Usmg5	upregulated during skeletal muscle growth 5	NM_023211	0	0	0	0	0	8.014	6.04	1.33	2.493
Pvalb	parvalbumin	AK131986	0	0	0	0	0	20.765	16.007	1.30	2.489
Neurod6	neurogenic differentiation 6	NM_009717	0	0	0	0	0	16.741	12.957	1.29	2.487

Clec7a	dendritic cell-associated C-type lectin 1	NM_020008	0	0	0	0	0	2.059	1.315	1.57	2.483
BC002288	Mus musculus 15 days embryo head cDNA, RIKEN full-length enriched library, clone:D930011D03 product:unclassifiable, full insert sequence.	BC002288	1	0	0	0	1	66.486	46.34	1.43	2.48
Cd63	Cd63 antigen	NM_007653	0	0	0	0	0	17.375	13.42	1.29	2.478
Tnfaip6	tumor necrosis factor alpha induced protein 6	NM_009398	0	0	0	0	0	6.292	4.701	1.34	2.476
Fkbp3	FK506 binding protein 3	NM_013902	10	0	6	2	2	21.984	16.969	1.30	2.473
Pop5	processing of precursor 5, ribonuclease P/MRP	NM_026398	0	0	0	0	0	7.979	6.023	1.32	2.471
Rps16	ribosomal protein S16	NM_013647	0	0	0	0	0	5.532	4.067	1.36	2.464
Rims3	regulating synaptic membrane exocytosis 3	NM_182929	7	0	7	0	0	15.527	12.037	1.29	2.457
AK088959	Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630046F14 product:unclassifiable, full insert sequence.	AK088959	3	0	0	1	2	4.059	2.798	1.45	2.446
Crhbp	corticotropin releasing hormone binding protein	NM_198408	0	0	0	0	0	5.581	4.123	1.35	2.445
Pspc1	paraspeckle protein 1	AK160722	37	0	33	0	4	13.792	10.561	1.31	2.443
ni-2	Mus musculus mRNA, novel lipopolysaccharide-inducible gene, complete cds.	AK050796	14	0	10	0	4	26.432	20.332	1.30	2.443
AK047199	Mus musculus 10 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:B930034P18 product:unclassifiable, full insert sequence.	AK047199	23	0	23	0	0	7.079	5.274	1.34	2.441
Col4a2	procollagen, type IV, alpha 2	NM_009932	1	0	1	0	0	10.226	7.922	1.29	2.439
Abhd7	epoxide hydrolase-related	NM_001001804	4	0	4	0	0	13.404	10.291	1.30	2.429
Osbpl3	Mus musculus adult male lung cDNA, RIKEN full-length enriched library, clone:1200014M06 product:oxysterol binding protein-like 3, full insert sequence.	AK160310	8	0	7	0	1	3.991	2.776	1.44	2.416
Il33	interleukin 33	AK075849	0	0	0	0	0	25.911	19.999	1.30	2.416
Satb1	special AT-rich sequence binding protein 1	NM_009122	6	1	5	0	0	14.383	11.17	1.29	2.415
Col11a1	15 days embryo head cDNA, RIKEN full-length enriched library, clone:D930007F17 product:procollagen, type XI, alpha 1, full insert sequence. (Fragment).	AK081304	0	0	0	0	0	4.334	3.025	1.43	2.415
Dnajb6	DnaJ (Hsp40) homolog, subfamily B, member 6	NM_001037941	17	0	15	0	2	3.523	2.489	1.42	2.41
Rps27l	ribosomal protein S27-like	NM_026467	0	0	0	0	0	3.676	2.582	1.42	2.406
Syt12	synaptotagmin-like 2 isoform 3	NM_031394	2	0	2	0	0	12.882	9.943	1.30	2.4
Arhgap15	Rho GTPase activating protein 15 isoform 1	NM_153820	0	0	0	0	0	3.09	2.206	1.40	2.397
Vip	vasoactive intestinal polypeptide	NM_011702	0	0	0	0	0	3.052	2.183	1.40	2.376
5330431N19Rik	Mus musculus 16 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A130026N14 product:unclassifiable, full insert sequence.	BC027559	0	0	0	0	0	8.577	6.617	1.30	2.375
6330406l15Rik	hypothetical protein LOC70717	NM_027519	0	0	0	0	0	5.974	4.504	1.33	2.366
Adcyap1	adenylate cyclase activating polypeptide 1	AK079530	1	0	0	1	0	2.989	2.137	1.40	2.36

Fbxo44	F-box protein 44	BC028884	6	0	2	0	4	21.878	17.096	1.28	2.354
AK005679	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:1700006L05 product:unclassifiable, full insert sequence.	AK005679	3	0	2	1	0	10.226	7.987	1.28	2.352
Fcer1g	Fc receptor, IgE, high affinity I, gamma	NM_010185	0	0	0	0	0	10.526	8.253	1.28	2.35
Fam57b	Protein FAM57B.	BC055444	1	0	0	0	1	18.566	14.551	1.28	2.35
1200015N20Rik	hypothetical protein LOC71721	AK044049	27	0	15	0	12	22.224	17.318	1.28	2.347
Bhlhb5	basic helix-loop-helix domain containing, class	NM_021560	0	0	0	0	0	4.914	3.595	1.37	2.341
Tipin	timeless interacting protein	BC016211	0	0	0	0	0	4.462	3.188	1.40	2.333
Cox6c	cytochrome c oxidase, subunit VIc	NM_053071	4	0	2	1	1	22.465	17.536	1.28	2.33
AK015755	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930511H18 product:hypothetical protein, full insert sequence.	AK015755	0	0	0	0	0	1.521	0.865	1.76	2.329
Rps4x	ribosomal protein S4, X-linked	AK088410	1	0	1	0	0	5.268	3.912	1.35	2.326
Hr	hairless protein	NM_021877	0	0	0	0	0	9.3	7.327	1.27	2.326
Dbi	diazepam binding inhibitor isoform 1	NM_001037999	3	0	0	1	2	39.111	28.161	1.39	2.323
Arl11	ADP-ribosylation factor-like 11	NM_177337	0	0	0	0	0	1.689	1.056	1.60	2.32
Col4a1	procollagen, type IV, alpha 1	NM_009931	1	0	1	0	0	7.396	5.692	1.30	2.32
Mcts1	malignant T cell amplified sequence 1	NM_026902	6	0	3	2	1	18.888	14.89	1.27	2.317
Oaz1	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110005A09 product:ornithine decarboxylase antizyme, full insert sequence.	BC094287	6	0	6	0	0	6.196	4.704	1.32	2.316
Rspo3	R-spondin 3	NM_028351	0	0	0	0	0	2.43	1.685	1.44	2.316
Tmem16d	10 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:6530413P15 product:weakly similar to HYPOTHETICAL 114.7 kDa PROTEIN.	AK078364	32	0	30	0	2	3.753	2.685	1.40	2.31
Elov4	elongation of very long chain fatty acids-like	NM_148941	3	0	1	0	2	18.179	14.339	1.27	2.302
Mpeg1	macrophage expressed gene 1	NM_010821	0	0	0	0	0	50.822	36.305	1.40	2.301
AK004512	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1190007C21 product:unclassifiable, full insert sequence.	AK004512	0	0	0	0	0	6.979	5.299	1.32	2.299
Nuak1	NUAK family, SNF1-like kinase, 1	NM_001004363	24	1	22	0	1	20.029	15.847	1.26	2.285
Psme2	proteasome activator subunit 2 isoform 1	NM_011190	0	0	0	0	0	2.904	2.102	1.38	2.281
ramp	Mus musculus ramp mRNA for retinoic-acid regulated nuclear matrix-associated protein, complete cds.	AK164999	0	0	0	0	0	2.658	1.909	1.39	2.279
Galnt9	UDP-N-acetyl-alpha-D-galactosamine:polypeptide	NM_198306	28	1	27	0	0	10.842	8.535	1.27	2.277
2310045A20Rik	hypothetical protein LOC231238	AK037220	28	0	21	2	5	12.297	9.674	1.27	2.277
Car8	carbonic anhydrase-like	NM_007592	5	0	0	0	5	7.786	6.028	1.29	2.256

Zfp367	zinc finger protein 367	AK041361	0	0	0	0	0	7.576	5.884	1.29	2.253
Zfp457	zinc finger protein 457	NM_001003666	0	0	0	0	0	0.595	0.287	2.07	2.251
Cryzl1	crystallin, zeta (quinone reductase)-like 1	AK017995	15	0	14	1	0	10.674	8.467	1.26	2.247
AF060570	Mus musculus rig-1 protein mRNA, complete cds.	AF060570	0	0	0	0	0	6.622	5.115	1.29	2.246
Sult2b1	Sulfotransferase family cytosolic 2B member 1 (EC 2.8.2.2) (Sulfotransferase 2B1) (Sulfotransferase 2B) (Alcohol sulfotransferase) (Hydroxysteroid sulfotransferase 2).	AF478566	0	0	0	0	0	2.317	1.616	1.43	2.245
Sec61b	Sec61 beta subunit	NM_024171	0	0	0	0	0	6.024	4.629	1.30	2.245
Cd44	CD44 antigen isoform b	NM_001039150	0	0	0	0	0	3.811	2.758	1.38	2.245
AK021003	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230216N24 product:unclassifiable, full insert sequence.	AK021003	7	0	5	2	0	2.332	1.625	1.44	2.245
6430514L14Rik	hypothetical protein LOC76886	NM_029784	3	0	3	0	0	31.185	23.899	1.30	2.22
AK020506	Mus musculus 12 days embryo embryonic body between diaphragm region and neck cDNA, RIKEN full-length enriched library, clone:9430085M18 product:unclassifiable, full insert sequence.	AK020506	0	0	0	0	0	1.058	0.584	1.81	2.218
Rpl26	ribosomal protein L26	BC070397	1	0	1	0	0	6.208	4.795	1.29	2.217
C3ar1	complement component 3a receptor 1	NM_009779	0	0	0	0	0	6.425	4.987	1.29	2.216
Chchd2	coiled-coil-helix-coiled-coil-helix domain	NM_024166	2	0	1	0	1	17.16	13.623	1.26	2.215
AK164098	Mus musculus 12 days embryo spinal cord cDNA, RIKEN full-length enriched library, clone:C530016P10 product:semaF cytoplasmic domain associated protein 3, full insert sequence.	AK164098	42	0	42	0	0	4.95	3.699	1.34	2.214
Tlr13	toll-like receptor 13	NM_205820	0	0	0	0	0	2.8	2.051	1.37	2.212
Znhit3	zinc finger, HIT type 3	NM_001005223	0	0	0	0	0	7.728	6.025	1.28	2.211
Dusp14	dual specificity phosphatase 14	NM_019819	6	0	6	0	0	22.665	17.9	1.27	2.21
Fabp3	fatty acid binding protein 3, muscle and heart	NM_010174	0	0	0	0	0	3.674	2.673	1.37	2.207
Psrc1	proline-serine-rich coiled-coil 1	AK017302	0	0	0	0	0	1.398	0.802	1.74	2.206
Acot1	acyl-CoA thioesterase 1	BC040749	0	0	0	0	0	3.447	2.512	1.37	2.204
AK153427	Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched library, clone:A630046C02 product:unclassifiable, full insert sequence.	AK153427	1	0	0	1	0	7.277	5.672	1.28	2.204
Cd52	CD52 antigen	NM_013706	0	0	0	0	0	3.849	2.801	1.37	2.203
Ctgf	connective tissue growth factor	NM_010217	0	0	0	0	0	8.335	6.556	1.27	2.202
Il12a	interleukin 12a	M86672	0	0	0	0	0	0.959	0.533	1.80	2.201
Spink10	Mus musculus adult male hypothalamus cDNA, RIKEN full-length enriched library, clone:A230091H23 product:hypothetical Kazal-type serine protease inhibitor domain containing protein, full insert sequence.	BC049733	6	0	6	0	0	1.226	0.694	1.77	2.2

Ociad2	OCIA domain containing 2	NM_026950	8	0	3	1	4	21.961	17.413	1.26	2.198
Hexb	hexosaminidase B	NM_010422	3	0	2	1	0	54.828	39.726	1.38	2.198
Stmn4	stathmin-like 4	NM_019675	4	0	2	0	2	85.55	62.031	1.38	2.193
Cutl2	16 days embryo head cDNA, RIKEN full-length enriched library, clone:C130044L13 product:cut-like 2 (Drosophila), full insert sequence.	AK140849	16	0	15	0	1	8.92	7.064	1.26	2.182
Gm694	hypothetical protein LOC277744	NM_001033374	0	0	0	0	0	2.139	1.488	1.44	2.177
4833420G17Rik	hypothetical protein LOC67392	BC028328	16	6	7	2	1	13.904	11.114	1.25	2.174
Fmn1	formin-like 1 isoform 2	NM_001077698	3	0	1	0	2	21.185	16.879	1.26	2.169
Arhdig	Rho GDP dissociation inhibitor (GDI) gamma	NM_008113	0	0	0	0	0	7.914	6.213	1.27	2.165
Fbxo2	F-box protein 2	NM_176848	0	0	0	0	0	12.714	10.075	1.26	2.163
Rpl37a	ribosomal protein L37a	NM_009084	0	0	0	0	0	2.682	1.97	1.36	2.161
Rspo1	thrombospondin type 1 domain containing	NM_138683	0	0	0	0	0	2.981	2.208	1.35	2.153
Sat1	Mus musculus adult male kidney cDNA, RIKEN full-length enriched library, clone:0610011E04 product:spermidine/spermine N1-acetyl transferase, full insert sequence.	BC108334	5	0	2	2	1	9.658	7.787	1.24	2.152
Adam15	a disintegrin and metalloprotease domain 15	NM_009614	2	1	1	0	1	16.065	12.868	1.25	2.147
Vsnl1	visinin-like 1	NM_012038	55	0	48	1	6	103.644	75.619	1.37	2.147
Igfbp6	insulin-like growth factor binding protein 6	NM_008344	0	0	0	0	0	4.37	3.208	1.36	2.144
Bfsp1	beaded filament structural protein in lens-CP94	NM_009751	0	0	0	0	0	0.507	0.255	1.99	2.142
Bcas2	breast carcinoma amplified sequence 2	NM_026602	11	0	8	2	1	8.572	6.804	1.26	2.14
2810457I06Rik	RIKEN cDNA 2810457I06	NM_176860	51	0	50	0	1	5.703	4.448	1.28	2.133
Magoh	mago-nashi homolog, proliferation-associated	NM_010760	1	0	1	0	0	4.258	3.116	1.37	2.124
Usp16	ubiquitin specific peptidase 16	NM_024258	7	0	6	0	1	7.951	6.294	1.26	2.121
Cdc123	Cell division cycle protein 123 homolog.	AK161246	9	0	9	0	0	15.531	12.483	1.24	2.12
Trappc6b	trafficking protein particle complex 6B	NM_030057	5	1	3	1	0	21.908	17.511	1.25	2.118
Ppa2	inorganic pyrophosphatase 2	AK090384	1	0	1	0	0	5.557	4.31	1.29	2.116
AK163099	Mus musculus adult aorta and vein cDNA, RIKEN full-length enriched library, clone:A530071E17 product:unclassifiable, full insert sequence.	AK163099	0	0	0	0	0	1.3	0.764	1.70	2.115
3110049J23Rik	MAWD binding protein homolog 2	NM_026085	0	0	0	0	0	0.6	0.305	1.97	2.114
Abcd2	ATP-binding cassette, sub-family D, member 2	NM_011994	3	0	1	1	1	16.077	12.93	1.24	2.109

Cox17	cytochrome c oxidase subunit XVII assembly	NM_001017429	1	0	1	0	0	19.175	15.441	1.24	2.108
AK046042	Mus musculus adult male corpora quadrigemina cDNA, RIKEN full-length enriched library, clone:B230337G05 product:unclassifiable, full insert sequence.	AK046042	0	0	0	0	0	3.676	2.719	1.35	2.103
Spr	Mus musculus adult male liver cDNA, RIKEN full-length enriched library, clone:1300008E05 product:sepiapterin reductase, full insert sequence.	AK004941	0	0	0	0	0	8.44	6.723	1.26	2.103
Gnas	GNAS complex locus isoform d	AY519504	2	0	0	0	2	14.375	11.516	1.25	2.102
Nt5c1a	5'-nucleotidase, cytosolic IA	NM_001085502	0	0	0	0	0	1.25	0.74	1.69	2.096
Cd200r1	Mus musculus 2 days pregnant adult female oviduct cDNA, RIKEN full-length enriched library, clone:E230038C19 product:antigen identified by monoclonal antibody MRC OX-2 receptor, full insert sequence.	AK170735	0	0	0	0	0	0.589	0.302	1.95	2.091
BC048507	cDNA sequence BC048507	NM_001001185	0	0	0	0	0	4.649	3.503	1.33	2.087
Dcdc2a	doublecortin domain containing 2	NM_177577	0	0	0	0	0	1.782	1.205	1.48	2.086
Etv4	ets variant gene 4 (E1A enhancer binding	X63190	0	0	0	0	0	3.823	2.829	1.35	2.084
Col22a1	Adult male tongue cDNA, RIKEN full-length enriched library, clone:2310067L16 product:weakly similar to COLLAGEN-LIKE PROTEIN (Fragment).	AK010095	0	0	0	0	0	0.782	0.402	1.95	2.084
Cox7a2	cytochrome c oxidase, subunit VIIa 2	NM_009945	5	1	2	0	2	26.606	21.221	1.25	2.082
Zc3h8	zinc finger CCCH type containing 8	NM_020594	1	0	0	0	1	2.653	1.975	1.34	2.076
D630023B12Rik	MKIAA1450 protein (Fragment).	BC116317	7	0	6	0	1	10.097	8.137	1.24	2.075
Arpc1b	actin related protein 2/3 complex, subunit 1B	BC010275	0	0	0	0	0	4.75	3.607	1.32	2.069
Cadps2	Calcium-dependent secretion activator 2 (Calcium-dependent activator protein for secretion 2) (CAPS-2).	AK042634	182	5	175	0	6	11.328	9.109	1.24	2.068
1810035L17Rik	hypothetical protein LOC380773	NM_026958	1	0	0	0	1	7.911	6.306	1.25	2.06
Nrn1l	neuritin 1-like	NM_175024	0	0	0	0	0	0.687	0.356	1.93	2.06
Gpx4	glutathione peroxidase 4 isoform 2 precursor	NM_008162	1	0	0	1	0	6.181	4.869	1.27	2.059
Dhx40	DEAH (Asp-Glu-Ala-His) box polypeptide 40	NM_026191	0	0	0	0	0	9.65	7.863	1.23	2.051
Tmem157	hypothetical protein LOC67698	NM_026321	2	0	2	0	0	12.513	10.053	1.24	2.05
AK172190	Mus musculus 13 days embryo spinal cord cDNA, RIKEN full-length enriched library, clone:G630062E24 product:ring finger protein 38, full insert sequence.	AK172190	9	1	6	0	2	18.466	14.938	1.24	2.047
Acyp2	acylphosphatase 2, muscle type	NM_029344	22	0	22	0	0	8.196	6.559	1.25	2.044
Immp1l	IMP1 inner mitochondrial membrane	NM_028260	0	0	0	0	0	2.014	1.416	1.42	2.04
Gas5	Mus musculus 9 days embryo whole body cDNA, RIKEN full-length enriched library, clone:D030018K05 product:growth arrest specific 5, full insert sequence.	AK219294	15	3	3	9	0	27.03	21.626	1.25	2.04
Cd200r4	Mus musculus NOD-derived CD11c +ve dendritic cells cDNA, RIKEN full-length enriched library, clone:F630107N04 product:similar to OX2 RECEPTOR [Mus musculus], full insert sequence.	AK089262	0	0	0	0	0	0.731	0.382	1.91	2.039
Dnaja1	Dnaj (Hsp40) homolog, subfamily A, member 1	NM_008298	11	0	5	2	4	10.959	8.84	1.24	2.038

Anxa4	annexin A4	NM_013471	0	0	0	0	0	2.729	2.057	1.33	2.036
AK003315	Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110002M09 product:unclassifiable, full insert sequence.	AK003315	2	0	2	0	0	15.988	12.96	1.23	2.033
Srp14	signal recognition particle 14	NM_009273	1	0	0	0	1	27.89	22.293	1.25	2.032
A930041I02Rik	hypothetical protein LOC320271	AK083280	31	0	21	0	10	11.733	9.447	1.24	2.028
AK033525	Mus musculus adult male testis cDNA, RIKEN full-length enriched library, clone:4930405F09 product:telomerase associated protein 1, full insert sequence.	AK033525	0	0	0	0	0	12.411	10.002	1.24	2.028
Dok5	docking protein 5	NM_029761	6	0	6	0	0	7.345	5.859	1.25	2.026
Cyp4f18	cytochrome P450 CYP4F18	NM_024444	0	0	0	0	0	0.518	0.272	1.90	2.025
Cd300lf	polymeric immunoglobulin receptor 3 precursor	NM_145634	0	0	0	0	0	0.793	0.417	1.90	2.024
Rab3b	RAB3B, member RAS oncogene family	NM_023537	0	0	0	0	0	16.108	13.075	1.23	2.021
Trappc1	trafficking protein particle complex 1	BC115921	0	0	0	0	0	8.493	6.838	1.24	2.02
Rpl7a	ribosomal protein L7a	NM_013721	2	0	2	0	0	2.783	2.105	1.32	2.02
Rpl23	Mus musculus ribosomal protein L23 (Rpl23) mRNA, complete cds.	AK139855	2	0	2	0	0	10.208	8.278	1.23	2.019
Acox3	acyl-Coenzyme A oxidase 3, pristanoyl	AJ278430	0	0	0	0	0	6.954	5.55	1.25	2.016
Cckbr	cholecystokinin B receptor	NM_007627	0	0	0	0	0	13.474	10.838	1.24	2.01
Cuedc2	CUE domain containing 2	AK013884	5	0	5	0	0	15.955	12.964	1.23	2.008
Dectin-1	Mus musculus dendritic cell-associated C-type lectin-1 (Dectin-1) mRNA, complete cds.	NM_020008	0	0	0	0	0	6.386	5.081	1.26	2.008
Ypel3	yippee-like 3	NM_025347	5	1	2	2	0	11.647	9.406	1.24	2.006
Neurod1	neurogenic differentiation 1	NM_010894	3	0	0	0	3	1.648	1.108	1.49	2.003
Rps26	ribosomal protein S26	NM_013765	0	0	0	0	0	20.932	16.967	1.23	2.002
D4Wsu53e	hypothetical protein LOC27981	NM_023665	10	0	3	0	7	71.095	52.925	1.34	2.001
Adra1d	adrenergic receptor, alpha 1d	NM_013460	0	0	0	0	0	4.119	3.056	1.35	2.001
Igfbp5	insulin-like growth factor binding protein 5	NM_010518	5	0	0	1	4	76.816	57.193	1.34	2
AK043659	Mus musculus 10 days neonate cortex cDNA, RIKEN full-length enriched library, clone:A630009L08 product:unclassifiable, full insert sequence.	AK043659	0	0	0	0	0	1.045	0.615	1.70	1.996
Zfp326	zinc finger protein 326	NM_018759	9	2	6	0	1	7.602	6.079	1.25	1.995
Lgals3	galectin 3	NM_010705	0	0	0	0	0	4.2	3.132	1.34	1.995
Car4	carbonic anhydrase 4	NM_007607	12	0	9	3	0	5.451	4.3	1.27	1.994
Tyrobp	TYRO protein tyrosine kinase binding protein	NM_011662	0	0	0	0	0	15.582	12.701	1.23	1.992

Fabp7	fatty acid binding protein 7, brain	NM_021272	2	1	0	0	1	5.815	4.611	1.26	1.99
C1qbp	complement component 1, q subcomponent binding	NM_007573	0	0	0	0	0	15.952	12.994	1.23	1.987
Gfap	glial fibrillary acidic protein	NM_010277	0	0	0	0	0	52.456	39.127	1.34	1.986
Ltc4s	Ltc4s protein (Leukotriene C4 synthase).	BC028760	0	0	0	0	0	1.939	1.368	1.42	1.985
KIAA1768	Mus musculus KIAA1768 mRNA for KIAA1768, complete cds.	AK169316	22	3	18	0	2	16.419	13.388	1.23	1.984
Rpain	Mus musculus ES cells cDNA, RIKEN full-length enriched library, clone:2400006N03 product:hypothetical protein, full insert sequence.	DQ810270	0	0	0	0	0	2.931	2.232	1.31	1.982
AK011460	Mus musculus 10 days embryo whole body cDNA, RIKEN full-length enriched library, clone:2610019E17 product:unclassifiable, full insert sequence.	AK011460	2	0	1	1	0	1.249	0.763	1.64	1.98
AK089514	Mus musculus 7 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:A730065B08 product:hypothetical protein, full insert sequence.	AK089514	2	0	2	0	0	2.883	2.201	1.31	1.98
Tagln3	transgelin 3	NM_019754	6	0	3	2	1	54.349	40.598	1.34	1.976
LOC100040340	hypothetical protein LOC100040340	NM_001099320	3	0	2	0	1	15.48	12.642	1.22	1.975
Npy1r	neuropeptide Y receptor Y1	NM_010934	0	0	0	0	0	6.266	5.002	1.25	1.975
Tbr1	T-box brain gene 1	NM_009322	2	0	0	0	2	25.681	20.744	1.24	1.975
Mtmr11	myotubularin related protein 11	NM_181409	1	0	0	1	0	2.121	1.537	1.38	1.974
Hgsnat	heparan-alpha-glucosaminide N-acetyltransferase	NM_029884	6	0	4	2	0	11.482	9.312	1.23	1.974
Kcnk12	potassium channel, subfamily K, member 12	NM_199251	4	0	4	0	0	2.112	1.53	1.38	1.974
Sec11c	Mus musculus adult male brain cDNA, RIKEN full-length enriched library, clone:0710007O22 product:MICROSOMAL SIGNAL PEPTIDASE 21 KDA SUBUNIT (EC 3.4.-.-) (SPASE 21 KDA SUBUNIT) (SPC21) homolog [Rattus norvegicus], full insert sequence.	AK003411	5	0	4	1	0	14.767	12.052	1.23	1.972
Rpl14	ribosomal protein L14	NM_025974	2	0	1	0	1	8.54	6.927	1.23	1.963
Ppil3	peptidylprolyl isomerase-like 3 isoform 2	NM_027374	0	0	0	0	0	5.882	4.678	1.26	1.962

Supplementary Table 4: Main functional categories enriched within the FUS/TLS-regulated genes

Group of genes	Gene Ontology Category	Enriched Gene Ontology Term		Number of listed genes in term	Total number of genes in term	% of listed genes in term	Corrected p-value*
Downregulated upon FUS/TLS knockdown in adult mouse brain	Biological Process	GO:0007268	synaptic transmission	15	125	12.0	1.9E-03
		GO:0019226	transmission of nerve impulse	16	163	9.8	4.8E-03
		GO:0007186	G-protein coupled receptor protein signaling pathway	21	297	7.1	8.2E-03
		GO:0007267	cell-cell signaling	16	177	9.0	8.7E-03
		GO:0050877	neurological system process	21	313	6.7	1.4E-02
		GO:0007166	cell surface receptor linked signal transduction	34	702	4.8	2.2E-02
	Cellular Component	GO:0005886	plasma membrane	73	1606	4.5	5.4E-05
		GO:0031224	intrinsic to membrane	102	2780	3.7	9.0E-04
		GO:0016021	integral to membrane	98	2660	3.7	1.0E-03
	Molecular Function	GO:0005576	extracellular region	33	681	4.8	3.1E-02
		GO:0008227	amine receptor activity	7	30	23.3	2.2E-02
	Upregulated upon FUS/TLS knockdown in adult mouse brain	GO:0008083	growth factor activity	9	71	12.7	4.5E-02
		GO:0030529	ribonucleoprotein complex	22	462	4.8	1.80E-05
		GO:0005840	ribosome	14	192	7.3	3.76E-05
	Cellular Component	GO:0005743	mitochondrial inner membrane	12	296	4.1	4.58E-02
		GO:0003735	structural constituent of ribosome	13	151	8.6	3.20E-05
		GO:0005198	structural molecule activity	20	450	4.4	7.99E-05

*The p-value indicated is corrected for multiple testing using the Benjamini-Hochberg method.

Supplementary Table 5: Splicing changes upon FUS/TLS depletion in adult or embryonic brain

Gene Symbol	Gene name	Entrez Gene ID	Chromosome	Start	End	Splicing index FUS/TLS KD adult brain	Splicing index FUS/TLS KO embryonic brain	Type of event
Co-regulated events: more exclusion in TLS KD adult brain and TLS KO embryonic brain								
Eno2	enolase 2, gamma neuronal	13807	chr6	124713942	124717050	-1.2	-0.62	twin_cassett
Clk1	CDC-like kinase 1	12747	chr1	58477055	58477926	-1.03	-0.68	retained_int
Taz	tafazzin	66826	chrX	71533852	71534443	-1.01	-0.84	alt_cassette
Cdk19	cyclin-dependent kinase 19	78334	chr10	40156018	40186443	-0.99	-0.76	alt_cassette
Ypel3	yippee-like 3 (Drosophila)	66090	chr7	133921467	133921820	-0.94	-1.26	alt_cassette
Srpk1	serine/arginine-rich protein specific kinase 1	20815	chr17	28736814	28737813	-0.91	-0.61	alt_cassette
R3hdm1	R3H domain 1 (binds single-stranded nucleic acids)	226412	chr1	130078769	130083355	-0.9	-0.61	alt_cassette
Tmem180	transmembrane protein 180	75146	chr19	46443823	46446671	-0.9	-0.72	alt_cassette
Ttc3	tetratricopeptide repeat domain 3	22129	chr16	94605673	94606390	-0.87	-1.32	alt_cassette
Tbp	TATA box binding protein	21374	chr17	15650585	15652579	-0.82	-0.76	alt_cassette
Ppip5k1	diphosphoinositol pentakisphosphate kinase 1	327655	chr2	121147528	121153380	-0.8	-0.82	alt_cassette
Gtf2ird1	general transcription factor II I repeat domain-containing 1	57080	chr5	134855890	134858650	-0.77	-0.52	alt_cassette
Ndrg2	N-myc downstream regulated gene 2	29811	chr14	52530460	52531140	-0.75	-0.58	alt_cassette
Kcnj3	potassium inwardly-rectifying channel, subfamily J, member 3	16519	chr2	55290313	55447221	-0.75	-1.37	alt_cassette
Meaf6	MYST/Esa1-associated factor 6	70088	chr4	124784770	124785587	-0.72	-0.59	complex
Zc3h14	zinc finger CCCH type containing 14	75553	chr12	100012529	100021791	-0.72	-0.56	twin_cassett
Ncor1	nuclear receptor co-repressor 1	20185	chr11	62214769	62217300	-0.68	-0.73	alt_cassette
Ncapd3	non-SMC condensin II complex, subunit D3	78658	chr9	26837759	26889900	-0.68	-0.9	alt_start
Elov6	ELOVL family member 6, elongation of long chain fatty acids (yeast)	170439	chr3	129308090	129335977	-0.65	-0.52	alt_cassette
2700029M09Rik	RIKEN cDNA 2700029M09 gene	72612	chr8	63372657	63375534	-0.64	-0.5	alt_cassette
Agap2	ArfGAP with GTPase domain, ankyrin repeat and PH domain 2	216439	chr10	126526414	126527482	-0.63	-0.72	alt_cassette
Bex1	brain expressed gene 1	19716	chrX	132749102	132749505	-0.61	-0.7	alt_5
Chd3	chromodomain helicase DNA binding protein 3	216848	chr11	69162023	69162423	-0.59	-0.73	alt_cassette
Phldb1	pleckstrin homology-like domain, family B, member 1	102693	chr9	44495781	44496699	-0.54	-0.85	alt_cassette
1110002L01Rik	RIKEN cDNA 1110002L01 gene	100043040	chr12	3406711	3407700	-0.54	-0.52	alt_5
Pcmtd1	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 1	319263	chr1	7079000	7150972	-0.53	-0.58	alt_start
Zcrb1	zinc finger CCHC-type and RNA binding motif 1	67197	chr15	93221996	93226017	-0.53	-0.54	alt_cassette
Ngn3	neuroigin 3	245537	chrX	98497770	98502414	-0.51	-0.52	alt_cassette
Heatr5a	HEAT repeat containing 5A	320487	chr12	53011060	53015981	-0.5	-0.5	alt_cassette
Co-regulated events: more inclusion in TLS KD adult brain and TLS KO embryonic brain								
5330434G04Rik	RIKEN cDNA 5330434G04 gene	100043213	chrX	102583275	102586814	1.05	0.97	alt_cassette
Enpp5	ectonucleotide pyrophosphatase/phosphodiesterase 5	83965	chr17	44219869	44222153	1.03	0.57	retained_int
Dtna	dystrobrevin alpha	13527	chr18	23633743	23693662	1.01	0.87	alt_cassette
Snrpn	small nuclear ribonucleoprotein N	20646	chr7	67133613	67140312	0.94	0.52	alt_cassette
Rnf14	ring finger protein 14	56736	chr18	38456452	38459407	0.91	0.72	alt_cassette
Luc7l2	LUC7-like 2 (S. cerevisiae)	192196	chr6	38501518	38520509	0.88	0.86	complex
Thra	thyroid hormone receptor alpha	21833	chr11	98625699	98629491	0.85	0.73	complex
Pcdhac2	protocadherin alpha subfamily C, 2	353237	chr18	37344701	37345129	0.84	0.96	retained_int

Hnmpd	heterogeneous nuclear ribonucleoprotein D	11991	chr5	100396406	100407410	0.8	0.52	alt_cassette
Bcan	brevican	12032	chr3	87791452	87796976	0.79	0.51	alt_end
Mphosph9	M-phase phosphoprotein 9	269702	chr5	124765905	124770853	0.79	0.6	alt_cassette
Tia1	cytotoxic granule-associated RNA binding protein 1	21841	chr6	86368926	86370317	0.78	1.18	alt_cassette
Enah	enabled homolog (Drosophila)	13800	chr1	183838487	183843458	0.78	1.14	alt_cassette
Rnf112	ring finger protein 112	22671	chr11	61264404	61264479	0.77	0.57	retained_int
Tpd52l2	tumor protein D52-like 2	66314	chr2	181236758	181242870	0.72	0.65	alt_cassette
Fchsd2	FCH and double SH3 domains 2	207278	chr7	108392730	108398958	0.68	0.53	alt_cassette
Slitrk4	SLIT and NTRK-like family, member 4	245446	chrX	61526284	61529974	0.67	0.73	alt_cassette
Rsrc2	arginine-serine-rich coiled-coil 2	208606	chr5	124195598	124199297	0.66	0.81	alt_cassette
Birc6	baculoviral IAP repeat-containing 6	12211	chr17	75014670	75017775	0.65	0.65	alt_5
Stau2	staufen (RNA binding protein) homolog 2 (Drosophila)	29819	chr1	16453255	16499443	0.64	0.64	alt_cassette
Lrp12	low density lipoprotein-related protein 12	239393	chr15	39716687	39775149	0.64	0.72	alt_cassette
Usp15	ubiquitin specific peptidase 15	14479	chr10	122583974	122600669	0.63	0.6	complex
Slc25a27	solute carrier family 25, member 27	74011	chr17	43780475	43783969	0.61	0.61	alt_3
Fyn	Fyn proto-oncogene	14360	chr10	39114850	39231544	0.61	0.61	alt_cassette
1810022K09Rik	RIKEN cDNA 1810022K09 gene	69126	chr3	14606408	14607176	0.58	1.01	retained_int
Rap1gds1	RAP1, GTP-GDP dissociation stimulator 1	229877	chr3	138628960	138678509	0.58	0.73	alt_cassette
Asnsd1	asparagine synthetase domain containing 1	70396	chr1	53403605	53405289	0.58	0.72	alt_5
Mpdu1	mannose-P-dolichol utilization defect 1	24070	chr11	69471325	69472088	0.58	0.73	alt_cassette
Kond3	potassium voltage-gated channel, Shal-related family, member 3	56543	chr3	105468464	105470997	0.58	0.64	alt_cassette
Ntan1	N-terminal Asn amidase	18203	chr16	13832527	13835228	0.57	0.62	alt_cassette
Capn10	calpain 10	23830	chr1	94837077	94844525	0.56	0.63	alt_end
Celsr2	cadherin, EGF LAG seven-pass G-type receptor 2 (flamingo homolog, Drosophila)	53883	chr3	108195576	108195928	0.55	0.61	retained_int
Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5	13002	chr2	181255402	181281075	0.54	0.8	alt_cassette
Sap30bp	SAP30 binding protein	57230	chr11	115796769	115813301	0.53	0.53	alt_cassette
Braf	Braf transforming gene	109880	chr6	39598485	39601603	0.52	0.6	alt_cassette
Zfand6	zinc finger, AN1-type domain 6	65098	chr7	91782919	91827819	0.51	0.61	alt_cassette
Anti-regulated events in FUS/TLS KD adult brain and FUS/TLS KO embryonic brain								
Ppil3	peptidyl/prolyl isomerase (cyclophilin)-like 3	70225	chr1	58501483	58501989	-0.58	0.57	alt_5
Pgcp	plasma glutamate carboxypeptidase	54381	chr15	33142754	33179680	-0.55	0.54	alt_5
More exclusion in FUS/TLS KD adult brain and no change in FUS/TLS KO embryonic brain								
Bcas1	breast carcinoma amplified sequence 1	76960	chr2	170204429	170212662	-1.48	0	alt_cassette
Ptk2b	PTK2 protein tyrosine kinase 2 beta	19229	chr14	66777514	66784100	-1.28	0	alt_cassette
Fus	fusion, derived from t(12;16) malignant liposarcoma (human)	233908	chr7	135116284	135117913	-1	0	retained_int
Gria1	glutamate receptor, ionotropic, AMPA1 (alpha 1)	14799	chr11	57102997	57131167	-0.92	0	mutually_exc
Dtnb	dystrobrevin, beta	13528	chr12	3772726	3779639	-0.91	0	complex
Dnaja4	DnaJ (Hsp40) homolog, subfamily A, member 4	58233	chr9	54547190	54547528	-0.91	0	alt_start
Nrcam	neuron-glia-CAM-related cell adhesion molecule	319504	chr12	45645882	45648218	-0.84	0	alt_cassette
BC048546	cDNA sequence BC048546	232400	chr6	128493359	128531624	-0.83	0	alt_start
Epb4.1l2	erythrocyte protein band 4.1-like 2	13822	chr10	25215397	25221629	-0.8	0	complex
Bnip2	BCL2/adenovirus E1B interacting protein 2	12175	chr9	69851474	69854870	-0.8	0	alt_cassette
Ddhd1	DDHD domain containing 1	114874	chr14	46215339	46221239	-0.79	0	alt_cassette

Aktip	thymoma viral proto-oncogene 1 interacting protein	14339	chr8	93653704	93654940	-0.79	0	alt_3
Fam126b	family with sequence similarity 126, member B	213056	chr1	58587103	58592233	-0.77	0	alt_cassette
Ccl20	chemokine (C-C motif) ligand 20	20297	chr1	83114651	83115270	-0.76	0	retained_int
Esyt2	extended synaptotagmin-like protein 2	52635	chr12	117586787	117595584	-0.73	0	complex
Tmem116	transmembrane protein 116	77462	chr5	121943784	121967809	-0.71	0	complex
Gadl1	glutamate decarboxylase-like 1	73748	chr9	115939948	115983465	-0.71	0	alt_end
Rit1	Ras-like without CAAX 1	19769	chr3	88521392	88521523	-0.69	0	alt_3
Ppp3ca	protein phosphatase 3, catalytic subunit, alpha isoform	19055	chr3	136591583	136597992	-0.68	0	alt_cassette
Rab7	RAB7, member RAS oncogene family	19349	chr6	87963692	87965625	-0.68	0	alt_cassette
Vldlr	very low density lipoprotein receptor	22359	chr19	27309402	27312543	-0.68	0	alt_cassette
Smarc1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	57376	chr11	99082029	99089831	-0.68	0	complex
Tjap1	tight junction associated protein 1	74094	chr17	46400759	46401831	-0.67	0	complex
Ckif	chemokine-like factor	75458	chr8	106781343	106788836	-0.67	0	Ncomplex
Cartpt	CART prepropeptide	27220	chr13	100669995	100670430	-0.67	0	alt_3
Me2	malic enzyme 2, NAD(+) -dependent, mitochondrial	107029	chr18	73929693	73957482	-0.67	0	alt_end
Rgs3	regulator of G-protein signaling 3	50780	chr4	62313870	62350532	-0.67	0	alt_end
Samd8	sterile alpha motif domain containing 8	67630	chr14	22570002	22594184	-0.67	0	alt_5
Mvd	mevalonate (diphospho) decarboxylase	192156	chr8	124963652	124964081	-0.67	0	alt_cassette
Ndst4	N-deacetylase/N-sulfotransferase (heparin glucosaminyl) 4	64580	chr3	125107008	125386057	-0.66	0	alt_start
Hmgn3	high mobility group nucleosomal binding domain 3	94353	chr9	83004036	83004599	-0.66	0	retained_int
Cstf3	cleavage stimulation factor, 3' pre-RNA, subunit 3	228410	chr2	104449129	104449247	-0.66	0	retained_int
Lsamp	limbic system-associated membrane protein	268890	chr16	39984483	41533565	-0.66	0	alt_start
Ankrd6	ankyrin repeat domain 6	140577	chr4	32947563	33037801	-0.66	0	Ncomplex
Cd68	CD68 antigen	12514	chr11	69478868	69479004	-0.65	0	alt_5
Hyal3	hyaluronoglucosaminidase 3	109685	chr9	107479389	107480679	-0.65	0	alt_3
Lmbr1	limb region 1	56873	chr5	29691746	29704666	-0.65	0	alt_3
Podnl1	podocan-like 1	244550	chr8	86651793	86652468	-0.65	0	retained_int
C730027H18Rik	RIKEN cDNA C730027H18 gene	319572	chr10	70634216	70634611	-0.65	0	retained_int
Rbm5	RNA binding motif protein 5	83486	chr9	107662180	107662652	-0.64	0	retained_int
Epb4.9	erythrocyte protein band 4.9	13829	chr14	71017247	71018045	-0.64	0	alt_cassette
Papola	poly (A) polymerase alpha	18789	chr12	107045428	107047553	-0.64	0	alt_cassette
Kcnab3	potassium voltage-gated channel, shaker-related subfamily, beta member 3	16499	chr11	69139759	69141621	-0.64	0	alt_start
Sfrs18	serine/arginine-rich splicing factor 18	66625	chr4	21796762	21797498	-0.64	0	retained_int
Myo5a	myosin VA	17918	chr9	75041944	75045449	-0.63	0	alt_cassette
Pank2	pantothenate kinase 2	74450	chr2	131099856	131113209	-0.63	0	complex
Ogt	O-linked N-acetylglucosamine (GlcNAc) transferase (UDP-N-acetylglucosamine:polypeptide-N-acetylglucosaminyl transferase)	108155	chrX	98835661	98838344	-0.62	0	alt_3
Hif1a	hypoxia inducible factor 1, alpha subunit	15251	chr12	75041618	75042716	-0.62	0	alt_3
St3gal3	ST3 beta-galactoside alpha-2,3-sialyltransferase 3	20441	chr4	117780298	117807338	-0.62	0	alt_5
Cd63	CD63 antigen	12512	chr10	128345974	128347450	-0.62	0	alt_start
Nfyb	nuclear transcription factor-Y beta	18045	chr10	82214210	82215151	-0.62	0	retained_int
Mutyh	mutY homolog (E. coli)	70603	chr4	116490622	116490866	-0.62	0	retained_int
Tecr	trans-2,3-enoyl-CoA reductase	106529	chr8	86097770	86098377	-0.61	0	alt_cassette

Tk1	thymidine kinase 1	21877	chr11	117686095	117687028	-0.61	0	alt_cassette
Erc2	ELKS/RAB6-interacting/CAST family member 2	238988	chr14	29116196	29288788	-0.61	0	alt_cassette
Uba3	ubiquitin-like modifier activating enzyme 3	22200	chr6	97149315	97153467	-0.61	0	alt_cassette
D3Ertd751e	DNA segment, Chr 3, ERATO Doi 751, expressed	73852	chr3	41546611	41550469	-0.61	0	complex
Mcm6	minichromosome maintenance deficient 6 (MIS5 homolog, <i>S. pombe</i>) (<i>S. cerevisiae</i>)	17219	chr1	130228628	130230093	-0.6	0	retained_int
1700088E04Rik	RIKEN cDNA 1700088E04 gene	27660	chr15	78969710	78971331	-0.6	0	alt_cassette
Coq7	demethyl-Q 7	12850	chr7	125671932	125673072	-0.6	0	retained_int
Prkcd	protein kinase C, delta	18753	chr14	31415600	31415922	-0.6	0	complex
Ahbd16a	abhydrolase domain containing 16A	193742	chr17	35237613	35237927	-0.6	0	alt_3
Dusp3	dual specificity phosphatase 3 (vaccinia virus phosphatase VH1-related)	72349	chr11	101836253	101845926	-0.6	0	alt_cassette
Cpped1	calcineurin-like phosphoesterase domain containing 1	223978	chr16	11828267	11887670	-0.6	0	alt_end
Rreb1	ras responsive element binding protein 1	68750	chr13	37985853	37990280	-0.59	0	alt_5
Insl3	insulin-like 3	16336	chr8	74204696	74204781	-0.59	0	retained_int
Chpt1	choline phosphotransferase 1	212862	chr10	87935729	87938170	-0.58	0	complex
Th1l	TH1-like homolog (Drosophila)	57314	chr2	174249629	174250127	-0.58	0	alt_5
Myo6	myosin VI	17920	chr9	80140324	80146952	-0.58	0	twin_cassett
Pclo	piccolo (presynaptic cytomatrix protein)	26875	chr5	14714598	14718856	-0.58	0	alt_3
Anapc13	anaphase promoting complex subunit 13	69010	chr9	102528676	102532093	-0.58	0	alt_5
Herc4	hect domain and RLD 4	67345	chr10	62708853	62726794	-0.58	0	alt_cassette
Tmem8	transmembrane protein 8 (five membrane-spanning domains)	60455	chr17	26257387	26258505	-0.58	0	alt_cassette
Tmed9	transmembrane emp24 protein transport domain containing 9	67511	chr13	55694312	55694861	-0.58	0	alt_start
Cadps	Ca2+-dependent secretion activator	27062	chr14	13286833	13298372	-0.58	0	alt_cassette
Tmem50b	transmembrane protein 50B	77975	chr16	91576403	91580447	-0.57	0	alt_cassette
Dhrs3	dehydrogenase/reductase (SDR family) member 3	20148	chr4	144508697	144509287	-0.57	0	alt_3
Nfasc	neurofascin	269116	chr1	134518200	134528261	-0.57	0	alt_cassette
Angel2	angel homolog 2 (Drosophila)	52477	chr1	192761579	192769617	-0.57	0	alt_end
Dpysl5	dihydropyrimidinase-like 5	65254	chr5	31014375	31047594	-0.57	0	alt_5
Ccdc141	coiled-coil domain containing 141	545428	chr2	76913065	76946419	-0.57	0	alt_cassette
Rasgrp2	RAS, guanyl releasing protein 2	19395	chr19	6403563	6408954	-0.57	0	alt_end
Mlx	MAX-like protein X	21428	chr11	100948681	100949067	-0.57	0	alt_5
Slc7a6	solute carrier family 7 (cationic amino acid transporter, y+ system), member 6	330836	chr8	108716383	108717050	-0.56	0	retained_int
Hsd17b12	hydroxysteroid (17-beta) dehydrogenase 12	56348	chr2	93872853	93955149	-0.55	0	alt_end
Slc26a11	solute carrier family 26, member 11	268512	chr11	119223610	119224713	-0.55	0	retained_int
Fkbp7	FK506 binding protein 7	14231	chr2	76501101	76509753	-0.55	0	alt_end
Zmym3	zinc finger, MYM-type 3	56364	chrX	98612649	98614154	-0.55	0	alt_3
Tfdp2	transcription factor Dp 2	211586	chr9	96188141	96195383	-0.55	0	alt_cassette
4930417O13Rik	RIKEN cDNA 4930417O13 gene	73870	chr6	125216544	125220340	-0.55	0	alt_3
Wdr33	WD repeat domain 33	74320	chr18	31995135	32048794	-0.55	0	alt_end
Rexo2	REX2, RNA exonuclease 2 homolog (<i>S. cerevisiae</i>)	104444	chr9	48282618	48283224	-0.55	0	alt_3
Pex5l	peroxisomal biogenesis factor 5-like	58869	chr3	32979458	33041770	-0.54	0	alt_cassette
Pcsk7	proprotein convertase subtilisin/kexin type 7	18554	chr9	45734911	45735657	-0.54	0	alt_cassette
Ablm1	actin-binding LIM protein 1	226251	chr19	57119462	57123951	-0.54	0	alt_cassette

Pptrz1	protein tyrosine phosphatase, receptor type Z, polypeptide 1	19283	chr6	22950179	22957294	-0.54	0	alt_5
Traf3	TNF receptor-associated factor 3	22031	chr12	112486857	112490874	-0.54	0	alt_cassette
Akap2	A kinase (PRKA) anchor protein 2	11641	chr4	57447346	57909856	-0.54	0	Ncomplex
Kif21a	kinesin family member 21A	16564	chr15	90779475	90786725	-0.54	0	alt_cassette
Nbr1	neighbor of Brca1 gene 1	17966	chr11	101413468	101415301	-0.54	0	alt_start
Sgcz	sarcoglycan zeta	244431	chr8	38626317	39015917	-0.53	0	twin_cassett
Zfp553	zinc finger protein 553	233887	chr7	134377000	134378777	-0.53	0	alt_5
Reep6	receptor accessory protein 6	70335	chr10	79796879	79797854	-0.53	0	alt_cassette
Senp7	SUMO1/sentrin specific peptidase 7	66315	chr16	56097544	56123892	-0.52	0	alt_cassette
Stxbp5l	syntaxin binding protein 5-like	207227	chr16	37140169	37174382	-0.52	0	alt_cassette
Stambpl1	STAM binding protein like 1	76630	chr19	34267085	34294676	-0.52	0	alt_5
Spry3	SPRY domain containing 3	223918	chr15	101960844	101961096	-0.52	0	retained_int
Qars	glutaminyl-tRNA synthetase	97541	chr9	108417364	108417437	-0.52	0	retained_int
0610011L14Rik	RIKEN cDNA 0610011L14 gene	68295	chr2	156373619	156376384	-0.52	0	alt_cassette
Fam63a	family with sequence similarity 63, member A	75007	chr3	95087547	95091566	-0.52	0	alt_cassette
Mtaps1	microtubule-associated protein 1S	270058	chr8	73435807	73436432	-0.52	0	complex
P2ry14	purinergic receptor P2Y, G-protein coupled, 14	140795	chr3	58920213	58957414	-0.52	0	Ncomplex
Alkbh7	alkB, alkylation repair homolog 7 (E. coli)	66400	chr17	57136970	57138114	-0.51	0	alt_cassette
Uggt2	UDP-glucose glycoprotein glucosyltransferase 2	66435	chr14	119406549	119408293	-0.51	0	alt_start
Zc3h14	zinc finger CCHC type containing 14	75553	chr12	99985732	99994394	-0.51	0	alt_cassette
9230114K14Rik	RIKEN cDNA 9230114K14 gene	414108	chr5	52588242	52603389	-0.51	0	alt_end
Tox4	TOX high mobility group box family member 4	268741	chr14	52906664	52906975	-0.51	0	retained_int
Vezt	vezatin, adherens junctions transmembrane protein	215008	chr10	93430844	93436579	-0.51	0	alt_end
Dnajc1	Dnaj (Hsp40) homolog, subfamily C, member 1	13418	chr2	18215671	18313918	-0.51	0	complex
Ttc4	tetratricopeptide repeat domain 4	72354	chr4	106350907	106351487	-0.51	0	alt_start
P2rx2	purinergic receptor P2X, ligand-gated ion channel, 2	231602	chr5	110771654	110771798	-0.51	0	alt_3
Syt2	synaptotagmin-like 2	83671	chr7	97540963	97543672	-0.51	0	alt_cassette
Tcf20	transcription factor 20	21411	chr15	82640217	82646040	-0.51	0	alt_cassette
Rarb	retinoic acid receptor, beta	218772	chr14	17381076	17651648	-0.51	0	alt_start
Ptdss1	phosphatidylserine synthase 1	19210	chr13	67064407	67067325	-0.51	0	alt_cassette
AI316807	expressed sequence AI316807	102032	chr8	23584052	23586977	-0.51	0	alt_cassette
Olf1344	olfactory receptor 1344	257882	chr7	6379866	6393578	-0.5	0	alt_end
Dyrk1b	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1b	13549	chr7	28970455	28970852	-0.5	0	alt_3
more exclusion in FUS/TLS KO embryonic brain and no change in FUS/TLS KD adult brain								
Spp1	secreted phosphoprotein 1	20750	chr5	104864215	104865393	0	-1.27	alt_5
Mest	mesoderm specific transcript	17294	chr6	30683507	30688334	0	-1.18	alt_start
Chst12	carbohydrate sulfotransferase 12	59031	chr5	140981650	14099495	0	-1.11	alt_5
Ttc3	tetratricopeptide repeat domain 3	22129	chr16	94614781	94669755	0	-1.07	alt_end
Adam22	a disintegrin and metalloproteinase domain 22	11496	chr5	8082269	8087981	0	-1.05	complex
H13	histocompatibility 13	14950	chr2	152526004	152530357	0	-0.96	alt_cassette
Wdr7	WD repeat domain 7	104082	chr18	63939611	63953878	0	-0.91	alt_cassette
Xpa	xeroderma pigmentosum, complementation group A	22590	chr4	46188267	46196010	0	-0.9	alt_cassette
Smg7	Smg-7 homolog, nonsense mediated mRNA decay factor (C. elegans)	226517	chr1	154693393	154695863	0	-0.87	alt_5

Ndc80	NDC80 homolog, kinetochore complex component (<i>S. cerevisiae</i>)	67052	chr17	71870471	71872942	0	-0.84	alt_cassette
Nbr1	neighbor of Brca1 gene 1	17966	chr11	101433291	101434121	0	-0.84	alt_cassette
Gstm6	glutathione S-transferase, mu 6	14867	chr3	107744202	107745051	0	-0.79	alt_3
Cdca2	cell division cycle associated 2	108912	chr14	68333062	68333898	0	-0.78	alt_start
Taf9	TAF9 RNA polymerase II, TATA box binding protein (TBP)-associated factor	108143	chr13	101421672	101424146	0	-0.78	alt_5
1700029G01Rik	RIKEN cDNA 1700029G01 gene	66938	chr4	125839267	125839696	0	-0.78	alt_cassette
2900079G21Rik	RIKEN cDNA 2900079G21 gene	620760	chr9	112136861	112181204	0	-0.77	alt_end
Bnip2	BCL2/adenovirus E1B interacting protein 2	12175	chr9	69845064	69846901	0	-0.77	alt_cassette
Atp8b5	ATPase, class I, type 8B, member 5	320571	chr4	43304603	43315454	0	-0.76	alt_cassette
Mme	membrane metallo endopeptidase	17380	chr3	63099509	63104046	0	-0.76	alt_start
Car3	carbonic anhydrase 3	12350	chr3	14864447	14872373	0	-0.76	alt_end
Sort1	sortilin 1	20661	chr3	108157159	108159148	0	-0.75	alt_cassette
Grtp1	GH regulated TBC protein 1	66790	chr8	13186959	13189643	0	-0.72	alt_cassette
Stra13	stimulated by retinoic acid 13	20892	chr11	120573209	120575006	0	-0.72	alt_cassette
Eif4g2	eukaryotic translation initiation factor 4, gamma 2	13690	chr7	118219226	118220209	0	-0.71	alt_cassette
Irak2	interleukin-1 receptor-associated kinase 2	108960	chr6	113597697	113615696	0	-0.71	complex
Trmt6	tRNA methyltransferase 6 homolog (<i>S. cerevisiae</i>)	66926	chr2	132635689	132635941	0	-0.7	alt_3
Smyd4	SET and MYND domain containing 4	319822	chr11	75195895	75218960	0	-0.7	alt_end
Gpr64	G protein-coupled receptor 64	237175	chrX	156899313	156903509	0	-0.7	alt_cassette
Havcr1	hepatitis A virus cellular receptor 1	171283	chr11	46569789	46583992	0	-0.7	alt_cassette
Cdv3	carnitine deficiency-associated gene expressed in ventricle 3	321022	chr9	103257643	103258609	0	-0.69	complex
Ccdc50	coiled-coil domain containing 50	67501	chr16	27435763	27436583	0	-0.69	alt_cassette
Dnaja1	Dnaj (Hsp40) homolog, subfamily A, member 1	15502	chr4	40670877	40673138	0	-0.69	alt_cassette
Larp4b	La ribonucleoprotein domain family, member 4B	217980	chr13	9157475	9163920	0	-0.69	alt_cassette
Uqcr10	ubiquinol-cytochrome c reductase, complex III subunit X	66152	chr11	4602203	4604180	0	-0.69	alt_cassette
Fastkd5	FAST kinase domains 5	380601	chr2	130442441	130454224	0	-0.68	complex
Inca1	inhibitor of CDK, cyclin A1 interacting protein 1	103844	chr11	70509450	70513559	0	-0.68	complex
Apeh	acylpeptide hydrolase	235606	chr9	107994744	107994884	0	-0.67	retained_int
1110014N23Rik	RIKEN cDNA 1110014N23 gene	68505	chr19	6066414	6066498	0	-0.67	retained_int
Mrpl24	mitochondrial ribosomal protein L24	67707	chr3	87723573	87725738	0	-0.66	complex
Aldh2	aldehyde dehydrogenase 2, mitochondrial	11669	chr5	122017695	122020612	0	-0.66	alt_end
Prdx6	peroxiredoxin 6	11758	chr1	163174473	163181152	0	-0.66	alt_cassette
Kctd20	potassium channel tetramerisation domain containing 20	66989	chr17	29089514	29098358	0	-0.66	complex
Fbxl17	F-box and leucine-rich repeat protein 17	50758	chr17	63840236	63848649	0	-0.65	alt_start
Dclk1	doublecortin-like kinase 1	13175	chr3	55325845	55337491	0	-0.65	alt_end
Ip6k2	inositol hexaphosphate kinase 2	76500	chr9	108699537	108708664	0	-0.65	alt_end
Gnpda2	glucosamine-6-phosphate deaminase 2	67980	chr5	69964348	69966980	0	-0.65	alt_end
Eif3k	eukaryotic translation initiation factor 3, subunit K	73830	chr7	29756391	29759167	0	-0.64	alt_end
Plekha5	pleckstrin homology domain containing, family A member 5	109135	chr6	140542178	140544769	0	-0.64	alt_end
R3hdm1	R3H domain 1 (binds single-stranded nucleic acids)	226412	chr1	130083486	130090037	0	-0.63	alt_cassette
Hnrpm	heterogeneous nuclear ribonucleoprotein M	76936	chr17	33803474	33803591	0	-0.63	retained_int
Ptdss2	phosphatidylserine synthase 2	27388	chr7	148338992	148342053	0	-0.63	alt_end
2210018M11Rik	RIKEN cDNA 2210018M11 gene	233545	chr7	105786030	105790003	0	-0.62	alt_cassette

Dap3	death associated protein 3	65111	chr3	88729333	88730932	0	-0.62	alt_cassette
Alcam	activated leukocyte cell adhesion molecule	11658	chr16	52268592	52270780	0	-0.62	alt_cassette
Mtfr1	mitochondrial fission regulator 1	67472	chr3	19087386	19100025	0	-0.61	alt_5
Mospd1	motile sperm domain containing 1	70380	chrX	50699146	50708853	0	-0.61	alt_cassette
Zfp273	zinc finger protein 273	212569	chr13	67914833	67923220	0	-0.61	alt_3
Tmem150c	transmembrane protein 150C	231503	chr5	100506891	100515145	0	-0.61	alt_end
Tlk1	tousled-like kinase 1	228012	chr2	70563634	70576477	0	-0.61	alt_cassette
Angel2	angel homolog 2 (Drosophila)	52477	chr1	192765174	192766708	0	-0.61	alt_cassette
Mybl2	myeloblastosis oncogene-like 2	17865	chr2	162901491	162903543	0	-0.6	alt_cassette
1600020E01Rik	RIKEN cDNA 1600020E01 gene	72012	chr6	86477525	86477884	0	-0.6	retained_int
C77370	expressed sequence C77370	245555	chrX	101278622	101279194	0	-0.6	retained_int
2700081O15Rik	RIKEN cDNA 2700081O15 gene	108899	chr19	7495038	7495744	0	-0.6	alt_start
Naa40	N(alpha)-acetyltransferase 40	70999	chr19	7302581	7302841	0	-0.6	retained_int
Lrrkip2	leucine rich repeat (in FLII) interacting protein 2	71268	chr9	111108351	111116644	0	-0.6	twin_cassett
Wdr78	WD repeat domain 78	242584	chr4	102720971	102722704	0	-0.6	alt_cassette
Supt3h	suppressor of Ty 3 homolog (S. cerevisiae)	109115	chr17	45178255	45185230	0	-0.59	alt_5
2400003C14Rik	RIKEN cDNA 2400003C14 gene	71955	chr8	112199304	112201406	0	-0.59	alt_cassette
Frmd3	FERM domain containing 3	242506	chr4	73833673	73848118	0	-0.59	alt_end
Ankrnd55	ankyrin repeat domain 55	77318	chr13	113126483	113146298	0	-0.58	alt_end
Brpf1	bromodomain and PHD finger containing, 1	78783	chr6	113257331	113259796	0	-0.58	alt_5
Ttc14	tetratricopeptide repeat domain 14	67120	chr3	33702126	33702921	0	-0.58	alt_cassette
Sfmbt1	Scm-like with four mbt domains 1	54650	chr14	31528081	31579148	0	-0.57	Ncomplex
Odf2	outer dense fiber of sperm tails 2	18286	chr2	29749032	29756596	0	-0.57	alt_5
Thpo	thrombopoietin	21832	chr16	20725938	20726399	0	-0.57	alt_3
Zfp593	zinc finger protein 593	68040	chr4	133800845	133800939	0	-0.57	retained_int
Stk30	serine/threonine kinase 30	26448	chr12	112046331	112046414	0	-0.57	retained_int
Sumf2	sulfatase modifying factor 2	67902	chr5	130322865	130328749	0	-0.57	alt_start
Siglech	sialic acid binding Ig-like lectin H	233274	chr7	63023740	63023840	0	-0.57	retained_int
Ccdc34	coiled-coil domain containing 34	68201	chr2	109872596	109880730	0	-0.56	twin_cassett
Rnh1	ribonuclease/angiogenin inhibitor 1	107702	chr7	148352686	148358727	0	-0.56	alt_start
Omd	osteomodulin	27047	chr13	49678182	49684830	0	-0.56	alt_cassette
2610044O15Rik	RIKEN cDNA 2610044O15 gene	72139	chr17	95160917	95218234	0	-0.56	alt_cassette
Col4a3bp	collagen, type IV, alpha 3 (Goodpasture antigen) binding protein	68018	chr13	97386504	97394649	0	-0.56	alt_cassette
Rnf13	ring finger protein 13	24017	chr3	57600187	57606389	0	-0.56	complex
Nnt	nicotinamide nucleotide transhydrogenase	18115	chr13	120185783	120197709	0	-0.55	alt_cassette
Hp1bp3	heterochromatin protein 1, binding protein 3	15441	chr4	137772655	137778003	0	-0.55	alt_cassette
Rbm3	RNA binding motif protein 3	19652	chrX	7717192	7719952	0	-0.55	alt_end
Cldn10	claudin 10	58187	chr14	119261252	119273414	0	-0.55	alt_cassette
Rbm14	RNA binding motif protein 14	56275	chr19	4785567	4792397	0	-0.55	alt_cassette
Ezh2	enhancer of zeste homolog 2 (Drosophila)	14056	chr6	47508293	47526561	0	-0.54	alt_5
Fxc1	fractured callus expressed transcript 1	14356	chr7	112817116	112822333	0	-0.54	alt_3
Lrrtm3	leucine rich repeat transmembrane neuronal 3	216028	chr10	63391244	63550595	0	-0.54	alt_end
Atp10d	ATPase, class V, type 10D	231287	chr5	72657293	72658666	0	-0.54	alt_5

Asap1	ArfGAP with SH3 domain, ankyrin repeat and PH domain1	13196	chr15	63934034	63951519	0	-0.54	alt_cassette
Dlg4	discs, large homolog 4 (Drosophila)	13385	chr11	69856225	69857798	0	-0.53	alt_cassette
Commd7	COMM domain containing 7	99311	chr2	153446230	153447505	0	-0.53	retained_int
Itch	itchy, E3 ubiquitin protein ligase	16396	chr2	154964008	154989128	0	-0.53	alt_cassette
Galt	galactose-1-phosphate uridyl transferase	14430	chr4	41703434	41703811	0	-0.53	alt_cassette
Ebf1	early B cell factor 1	13591	chr11	44434732	44435422	0	-0.53	alt_5
March8	membrane-associated ring finger (C3HC4) 8	71779	chr6	116288213	116326731	0	-0.52	alt_cassette
Frmd4a	FERM domain containing 4A	209630	chr2	4074156	4352244	0	-0.52	alt_end
Ewsr1	Ewing sarcoma breakpoint region 1	14030	chr11	4979502	4982276	0	-0.52	complex
Atp2b4	ATPase, Ca++ transporting, plasma membrane 4	381290	chr1	135603573	135611630	0	-0.52	alt_cassette
Pvrl3	poliovirus receptor-related 3	58998	chr16	46395117	46436466	0	-0.52	alt_end
1110014N23Rik	RIKEN cDNA 1110014N23 gene	68505	chr19	6063323	6066310	0	-0.51	alt_end
Pak1ip1	PAK1 interacting protein 1	68083	chr13	41103505	41103579	0	-0.51	retained_int
Cct3	chaperonin containing Tcp1, subunit 3 (gamma)	12462	chr3	88115724	88117184	0	-0.51	alt_3
Nat15	N-acetyltransferase 15 (GCN5-related, putative)	74763	chr16	3894484	3897250	0	-0.51	alt_cassette
Golga5	golgi autoantigen, golgin subfamily a, 5	27277	chr12	103707344	103710207	0	-0.51	alt_start
Madd	MAP-kinase activating death domain	228355	chr2	91019478	91023975	0	-0.51	alt_start
1110021J02Rik	RIKEN cDNA 1110021J02 gene	68597	chr17	29837197	29841314	0	-0.51	complex
Lass5	LAG1 homolog, ceramide synthase 5	71949	chr15	99570141	99576340	0	-0.51	twin_cassett
Clec16a	C-type lectin domain family 16, member A	74374	chr16	10596078	10611095	0	-0.51	alt_5
Exoc2	exocyst complex component 2	66482	chr13	31032639	31065916	0	-0.51	alt_start
Snhg1	small nucleolar RNA host gene (non-protein coding) 1	83673	chr19	8800013	8800271	0	-0.51	retained_int
Cit	citron	12704	chr5	116375508	116447862	0	-0.5	alt_end
Chd2	chromodomain helicase DNA binding protein 2	244059	chr7	80649994	80658996	0	-0.5	alt_cassette
More inclusion in FUS/TLS KD adult brain and no change in FUS/TLS KO embryonic brain								
Kcnip4	Kv channel interacting protein 4	80334	chr5	48900897	49280772	2.22	0	complex
Nrxn1	neurexin I	18189	chr17	91020231	91022759	1.27	0	retained_int
D4Wsu53e	DNA segment, Chr 4, Wayne State University 53, expressed	27981	chr4	134481347	134482649	1.25	0	alt_cassette
Tmcc2	transmembrane and coiled-coil domains 2	68875	chr1	134257792	134277758	1	0	alt_start
Ptprs	protein tyrosine phosphatase, receptor type, S	19280	chr17	56564400	56573875	0.97	0	alt_cassette
Ppfibp1	PTPRF interacting protein, binding protein 1 (liprin beta 1)	67533	chr6	146961040	146964744	0.94	0	alt_cassette
Lrrkip1	leucine rich repeat (in FLII) interacting protein 1	16978	chr1	92975658	92981522	0.88	0	alt_cassette
Apopb1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	11810	chr6	122531748	122541125	0.86	0	alt_cassette
Vamp1	vesicle-associated membrane protein 1	22317	chr6	125169655	125170067	0.85	0	retained_int
AK158929	RIKEN full-length enriched library, clone:K530010N24		chr1	148278557	148342029	0.84	0	twin_cassett
Mudeng	MU-2/AP1M2 domain containing, death-inducing	74385	chr14	49693417	49698369	0.83	0	complex
Fam65b	family with sequence similarity 65, member B	193385	chr13	24787571	24792930	0.83	0	alt_cassette
Sept9	septin 9	53860	chr11	117060974	117151711	0.82	0	alt_start
Slc8a1	solute carrier family 8 (sodium/calcium exchanger), member 1	20541	chr17	81785367	81788170	0.81	0	retained_int
Bcas1	breast carcinoma amplified sequence 1	76960	chr2	170174963	170204222	0.81	0	complex
Rasgrp2	RAS, guanyl releasing protein 2	19395	chr19	6400604	6401741	0.81	0	complex
Ahi1	Abelson helper integration site 1	52906	chr10	20778056	20792348	0.81	0	alt_cassette
5730419l09Rik	RIKEN cDNA 5730419l09 gene	74741	chr6	143021214	143026782	0.79	0	alt_cassette

Lyl1	lymphoblastomic leukemia 1	17095	chr8	87226569	87226710	0.78	0	alt_5
Mag	myelin-associated glycoprotein	17136	chr7	31684717	31685656	0.78	0	alt_cassette
2210415F13Rik	RIKEN cDNA 2210415F13 gene	70163	chr11	58192600	58195786	0.77	0	alt_cassette
Mobp	myelin-associated oligodendrocytic basic protein	17433	chr9	120082493	120090602	0.77	0	alt_end
Nin	ninein	18080	chr12	71141867	71146133	0.76	0	alt_cassette
Clk4	CDC like kinase 4	12750	chr11	51080833	51085301	0.76	0	alt_cassette
Dapp1	dual adaptor for phosphotyrosine and 3-phosphoinositides 1	26377	chr3	137612721	137644303	0.75	0	alt_cassette
Lrp8	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	16975	chr4	107520151	107523933	0.75	0	complex
Nrxn1	neurexin I	18189	chr17	91100245	91103405	0.74	0	alt_cassette
Ift46	intraflagellar transport 46 homolog (Chlamydomonas)	76568	chr9	44581867	44590183	0.74	0	alt_cassette
Tmem116	transmembrane protein 116	77462	chr5	121917974	121937779	0.74	0	alt_cassette
Pdlim7	PDZ and LIM domain 7	67399	chr13	55599935	55608690	0.73	0	alt_end
St3gal3	ST3 beta-galactoside alpha-2,3-sialyltransferase 3	20441	chr4	117704487	117780153	0.73	0	alt_cassette
Trio	triple functional domain (PTPRF interacting)	223435	chr15	27677897	27678214	0.72	0	retained_int
Sorbs2	sorbin and SH3 domain containing 2	234214	chr8	46821556	46830773	0.71	0	alt_cassette
Zfp385b	zinc finger protein 385B	241494	chr2	77341739	77654873	0.7	0	Ncomplex
Phkb	phosphorylase kinase beta	102093	chr8	88420436	88425775	0.69	0	alt_cassette
Osbpl9	oxysterol binding protein-like 9	100273	chr4	108760090	108771107	0.69	0	alt_cassette
Anp32e	acidic (leucine-rich) nuclear phosphoprotein 32 family, member E	66471	chr3	95741926	95748229	0.69	0	alt_3
Adsl	adenylosuccinate lyase	11564	chr15	80786074	80790845	0.68	0	alt_cassette
Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	74182	chr2	132359809	132390362	0.68	0	alt_end
Pou6f1	POU domain, class 6, transcription factor 1	19009	chr15	100414590	100417074	0.68	0	alt_cassette
Ttc3	tetratricopeptide repeat domain 3	22129	chr16	94624975	94632439	0.68	0	alt_cassette
Arhgap22	Rho GTPase activating protein 22	239027	chr14	34172511	34177578	0.68	0	complex
Acid	adrenocortical dysplasia	497652	chr8	108223391	10823760	0.67	0	alt_cassette
Lace1	lactation elevated 1	215951	chr10	42146393	42174113	0.67	0	alt_cassette
Zfp523	zinc finger protein 523	224656	chr17	28326867	28334855	0.67	0	complex
Nsg2	neuron specific gene family member 2	18197	chr11	31917714	31958880	0.66	0	alt_end
Pml	promyelocytic leukemia	18854	chr9	58077893	58078297	0.66	0	alt_3
Rnf38	ring finger protein 38	73469	chr4	44165425	44181114	0.66	0	alt_cassette
Traf3	TNF receptor-associated factor 3	22031	chr12	112404813	112475772	0.66	0	alt_cassette
Gria2	glutamate receptor, ionotropic, AMPA2 (alpha 2)	14800	chr3	80493273	80495241	0.66	0	alt_cassette
Sqrd1	sulfide quinone reductase-like (yeast)	59010	chr2	122591124	122610679	0.66	0	Ncomplex
Pon2	paraoxonase 2	330260	chr6	5227927	5239012	0.65	0	alt_cassette
Abcc5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5	27416	chr16	20332331	20404638	0.65	0	alt_end
Pbrm1	polybromo 1	66923	chr14	31920496	31930198	0.65	0	alt_cassette
Appl2	adaptor protein, phosphotyrosine interaction, PH domain and leucine zipper containing 2	216190	chr10	83074217	83075477	0.64	0	complex
Zfp207	zinc finger protein 207	22680	chr11	80202832	80204832	0.64	0	alt_cassette
Msra	methionine sulfoxide reductase A	110265	chr14	64932572	65073726	0.64	0	alt_start
Fgfr3	fibroblast growth factor receptor 3	14184	chr5	34070565	34072329	0.64	0	alt_cassette
Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	74182	chr2	132382712	132390362	0.64	0	alt_cassette
Brsk2	BR serine/threonine kinase 2	75770	chr7	149171917	149173676	0.64	0	alt_cassette
Zfp558	zinc finger protein 558	72230	chr9	18260018	18261244	0.64	0	alt_end

Rabl2	RAB, member of RAS oncogene family-like 2	68708	chr15	89414821	89420703	0.64	0	complex
Islr2	immunoglobulin superfamily containing leucine-rich repeat 2	320563	chr9	58047770	58049107	0.64	0	alt_cassette
Gm10125	Mus musculus predicted gene 10125 (Gm10125), non-coding RNA	791318	chr18	5525387	5540603	0.64	0	alt_3
Armc8	armadillo repeat containing 8	74125	chr9	99438178	99469020	0.64	0	alt_cassette
Sec63	SEC63-like (<i>S. cerevisiae</i>)	140740	chr10	42516070	42517488	0.63	0	retained_int
Slc25a14	solute carrier family 25 (mitochondrial carrier, brain), member 14	20523	chrX	45976985	45982449	0.63	0	alt_cassette
Six3os1	Six3 opposite strand transcript 1	100043902	chr17	86014032	86014933	0.63	0	complex
Eif2b4	eukaryotic translation initiation factor 2B, subunit 4 delta	13667	chr5	31492099	31492370	0.62	0	alt_5
Arpp21	cyclic AMP-regulated phosphoprotein, 21	74100	chr9	112088273	112090093	0.62	0	alt_cassette
2310008H09Rik	RIKEN cDNA 2310008H09 gene	66356	chr7	125992068	125996423	0.62	0	alt_cassette
Arhgef2	rho/rac guanine nucleotide exchange factor (GEF) 2	16800	chr3	88437289	88437421	0.62	0	retained_int
Ociad2	OCIA domain containing 2	433904	chr5	73715066	73718922	0.62	0	alt_cassette
Ankrd24	ankyrin repeat domain 24	70615	chr10	81102880	81103512	0.62	0	retained_int
Rbmx	RNA binding motif protein, X chromosome	19655	chrX	54640570	54641237	0.62	0	retained_int
A830018L16Rik	RIKEN cDNA A830018L16 gene	320492	chr1	11586398	11923672	0.61	0	alt_end
Ankrd32	ankyrin repeat domain 32	105377	chr13	77242832	77245236	0.61	0	alt_end
Vapa	vesicle-associated membrane protein, associated protein A	30960	chr17	65932073	65941651	0.61	0	alt_cassette
Camk2b	calcium/calmodulin-dependent protein kinase II, beta	12323	chr11	5882741	5888124	0.61	0	complex
Cars	cysteinyl-tRNA synthetase	27267	chr7	150772396	150774417	0.61	0	alt_cassette
Prokr1	prokineticin receptor 1	58182	chr6	87539000	87540594	0.6	0	alt_5
1700017B05Rik	RIKEN cDNA 1700017B05 gene	74211	chr9	57106764	57110236	0.6	0	alt_cassette
D19Wsu162e	DNA segment, Chr 19, Wayne State University 162, expressed	226178	chr19	46673783	46718842	0.6	0	alt_cassette
Adamtsl1	ADAMTS-like 1	77739	chr4	85845286	85880168	0.6	0	alt_end
Bcl11a	B cell CLL/lymphoma 11A (zinc finger protein)	14025	chr11	24063288	24072698	0.6	0	complex
Polg2	polymerase (DNA directed), gamma 2, accessory subunit	50776	chr11	106638875	106640397	0.6	0	complex
Pax6	paired box gene 6	18508	chr2	105520464	105531721	0.6	0	complex
Lgr6	leucine-rich repeat-containing G protein-coupled receptor 6	329252	chr1	136902316	136923649	0.6	0	alt_cassette
Pdzd2	PDZ domain containing 2	68070	chr15	12388054	12478990	0.6	0	alt_cassette
Etl4	enhancer trap locus 4	208618	chr2	20211668	20451585	0.6	0	alt_cassette
4930422G04Rik	RIKEN cDNA 4930422G04 gene	71643	chr3	127276243	127286501	0.6	0	alt_cassette
Asap2	ArfGAP with SH3 domain, ankyrin repeat and PH domain 2	211914	chr12	21260328	21263870	0.59	0	alt_cassette
Adora1	adenosine A1 receptor	11539	chr1	136130989	136131804	0.59	0	retained_int
Dusp19	dual specificity phosphatase 19	68082	chr2	80461397	80464364	0.59	0	alt_5
Spink10	serine peptidase inhibitor, Kazal type 10	328971	chr18	62810503	62817510	0.59	0	alt_start
Lsm11	U7 snRNP-specific Sm-like protein LSM11	72290	chr11	45745367	45746883	0.59	0	retained_int
Rab7	RAB7, member RAS oncogene family	19349	chr6	87963692	87995066	0.58	0	complex
Qdpr	quinoid dihydropteridine reductase	110391	chr5	45834796	45838835	0.58	0	alt_cassette
Meis2	Meis homeobox 2	17536	chr2	115690249	115693004	0.58	0	alt_cassette
Al413582	expressed sequence Al413582	106672	chr17	27701179	27701527	0.58	0	alt_cassette
Stac2	SH3 and cysteine rich domain 2	217154	chr11	97902893	97904794	0.58	0	twin_cassett
Mtap2	microtubule-associated protein 2	17756	chr1	66433642	66445962	0.58	0	alt_5
Bin1	bridging integrator 1	30948	chr18	32573944	32579496	0.58	0	alt_cassette
Ssbp2	single-stranded DNA binding protein 2	66970	chr13	91704299	91810069	0.58	0	alt_end

Rbm5	RNA binding motif protein 5	83486	chr9	107659323	107662652	0.58	0	alt_cassette
Pdia5	protein disulfide isomerase associated 5	72599	chr16	35411063	35429839	0.58	0	alt_cassette
Ppap2c	phosphatidic acid phosphatase type 2C	50784	chr10	78993517	78996368	0.57	0	alt_cassette
Zdhhc20	zinc finger, DHHC domain containing 20	75965	chr14	58458042	58459666	0.57	0	alt_cassette
Zfml	zinc finger, matrin-like	18139	chr6	83904755	83907502	0.57	0	alt_cassette
Cdc14b	CDC14 cell division cycle 14 homolog B (<i>S. cerevisiae</i>)	218294	chr13	64348626	64376238	0.57	0	alt_start
Parp6	poly (ADP-ribose) polymerase family, member 6	67287	chr9	59488903	59496636	0.57	0	alt_cassette
Nrxn1	neurexin I	18189	chr17	91103707	91487294	0.57	0	twin_cassett
Nek8	NIMA (never in mitosis gene a)-related expressed kinase 8	140859	chr11	77984780	77985633	0.57	0	retained_int
Golga4	golgi autoantigen, golgin subfamily a, 4	54214	chr9	118446041	118448015	0.57	0	alt_cassette
Sybu	syntabulin (syntaxin-interacting)	319613	chr15	44550531	44619134	0.57	0	alt_cassette
Unc13b	unc-13 homolog B (<i>C. elegans</i>)	22249	chr4	43178850	43258468	0.57	0	alt_end
Huve1	HECT, UBA and WWE domain containing 1	59026	chrX	148358104	148359204	0.56	0	complex
Tmem44	transmembrane protein 44	224090	chr16	30514908	30529497	0.56	0	alt_cassette
Hnmpk	heterogeneous nuclear ribonucleoprotein K	15387	chr13	58497048	58498187	0.56	0	alt_cassette
Plekhm2	pleckstrin homology domain containing, family M (with RUN domain) member 2	69582	chr4	141190393	141195590	0.56	0	alt_cassette
Obsl1	obscurin-like 1	98733	chr1	75487643	75487762	0.56	0	retained_int
Ptplad2	protein tyrosine phosphatase-like A domain containing 2	66775	chr4	88042047	88065602	0.55	0	alt_end
Agtbp1	ATP/GTP binding protein 1	67269	chr13	59615656	59626506	0.55	0	alt_cassette
Nipbl	Nipped-B homolog (<i>Drosophila</i>)	71175	chr15	8241590	8242136	0.55	0	complex
Mapt	microtubule-associated protein tau	17762	chr11	104143794	104156172	0.55	0	twin_cassett
Gas2l1	growth arrest-specific 2 like 1	78926	chr11	4954133	4962157	0.55	0	alt_end
Csnk1g3	casein kinase 1, gamma 3	70425	chr18	54093179	54107722	0.55	0	alt_cassette
Sarpp	SAP domain containing ribonucleoprotein	66118	chr10	128259027	128270367	0.54	0	alt_cassette
Pde10a	phosphodiesterase 10A	23984	chr17	8719665	9091725	0.54	0	complex
Macrod2	MACRO domain containing 2	72899	chr2	140226714	140650817	0.54	0	alt_end
Ube2d3	ubiquitin-conjugating enzyme E2D 3 (UBC4/5 homolog, yeast)	66105	chr3	135118321	135121782	0.54	0	alt_cassette
9330182L06Rik	RIKEN cDNA 9330182L06 gene	231014	chr5	9463034	9480717	0.54	0	alt_end
Gfra2	glial cell line derived neurotrophic factor family receptor alpha 2	14586	chr14	71290701	71325524	0.54	0	alt_cassette
Gpr89	G protein-coupled receptor 89	67549	chr3	96684089	96684543	0.54	0	alt_5
Samd4	sterile alpha motif domain containing 4	74480	chr14	47636470	47683894	0.54	0	alt_cassette
Cope	coatomer protein complex, subunit epsilon	59042	chr8	72828575	72830418	0.54	0	alt_cassette
Rnf111	ring finger 111	93836	chr9	70324475	70351265	0.54	0	alt_cassette
Fut10	fucosyltransferase 10	171167	chr8	32346882	32371827	0.54	0	alt_end
Igbp1	immunoglobulin (CD79A) binding protein 1	18518	chrX	97690537	97711340	0.54	0	alt_end
Postn	periostin, osteoblast specific factor	50706	chr3	54188475	54193281	0.54	0	complex
Nrxn1	neurexin I	18189	chr17	91022759	91100083	0.54	0	alt_end
Pot1a	protection of telomeres 1A	101185	chr6	25744654	25750304	0.53	0	alt_cassette
Plekhb1	pleckstrin homology domain containing, family B (evection) member 1	27276	chr7	107794183	107802167	0.53	0	alt_cassette
Bmp1	bone morphogenetic protein 1	12153	chr14	70886079	70889826	0.53	0	complex
C92009B18Rik	RIKEN cDNA C92009B18 gene	606736	chr10	22027104	22041571	0.53	0	alt_end
Klh15	kelch-like 15 (<i>Drosophila</i>)	236904	chrX	91480464	91480559	0.53	0	retained_int
Dach2	dachshund 2 (<i>Drosophila</i>)	93837	chrX	110412544	110669856	0.53	0	complex

Pex5l	peroxisomal biogenesis factor 5-like	58869	chr3	32913998	32979386	0.53	0	alt_cassette
Cab39	calcium binding protein 39	12283	chr1	87690396	87714931	0.53	0	alt_cassette
Aldoc	aldolase C, fructose-bisphosphate	11676	chr11	78139298	78139784	0.53	0	alt_cassette
Magi1	membrane associated guanylate kinase, WW and PDZ domain containing 1	14924	chr6	93644169	93647187	0.53	0	complex
Pptrs	protein tyrosine phosphatase, receptor type, S	19280	chr17	56565927	56567362	0.52	0	alt_cassette
Ankrd54	ankyrin repeat domain 54	223690	chr15	78886495	78891614	0.52	0	alt_cassette
Rab12	RAB, member of RAS oncogene family-like 2	68708	chr15	89414438	89414709	0.52	0	retained_int
Trp53inp1	transformation related protein 53 inducible nuclear protein 1	60599	chr4	11092594	11096856	0.52	0	alt_cassette
Mical2	microtubule associated monooxygenase, calponin and LIM domain containing 2	320878	chr7	119475553	119490235	0.52	0	alt_cassette
Grpel2	GrpE-like 2, mitochondrial	17714	chr18	61869999	61872895	0.52	0	alt_end
Dnajc25	Dnaj (Hsp40) homolog, subfamily C, member 25	72429	chr4	59016370	59030541	0.52	0	alt_start
Tbce	tubulin-specific chaperone E	70430	chr13	14097550	14131867	0.52	0	alt_start
Gpx3	glutathione peroxidase 3	14778	chr11	54722621	54723604	0.52	0	complex
Neto2	neuropilin (NRP) and tolloid (TLL)-like 2	74513	chr8	88198029	88224823	0.52	0	alt_start
Ica1	islet cell autoantigen 1	15893	chr6	8603535	8606361	0.52	0	alt_cassette
Cmkrl1	chemokine-like receptor 1	14747	chr5	114062465	114066625	0.52	0	complex
2810474O19Rik	RIKEN cDNA 2810474O19 gene	67246	chr6	149258899	149273926	0.52	0	alt_cassette
Stxbp2	syntaxin binding protein 2	20911	chr8	3634123	3635446	0.52	0	alt_cassette
Pank1	pantothenate kinase 1	75735	chr19	34895713	34901610	0.51	0	alt_cassette
Mcm10	minichromosome maintenance deficient 10 (<i>S. cerevisiae</i>)	70024	chr2	4929838	4933771	0.51	0	alt_cassette
BC026590	cDNA sequence BC026590	230234	chr4	56815598	56816467	0.51	0	alt_3
1700012B15Rik	RIKEN cDNA 1700012B15 gene	74173	chr12	3238112	3241521	0.51	0	alt_cassette
Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40411525	40424388	0.51	0	alt_cassette
Rragd	Ras-related GTP binding D	52187	chr4	33069972	33082776	0.51	0	alt_start
Abim1	actin-binding LIM protein 1	226251	chr19	57158093	57247949	0.51	0	alt_start
Agpat9	1-acylglycerol-3-phosphate O-acyltransferase 9	231510	chr5	101275576	101275673	0.51	0	retained_int
Porcn	porcupine homolog (<i>Drosophila</i>)	53627	chrX	7780941	7782711	0.51	0	alt_cassette
Ppox	protoporphyrinogen oxidase	19044	chr1	173210112	173210539	0.51	0	alt_cassette
Ing1	inhibitor of growth family, member 1	26356	chr8	11556095	11561417	0.5	0	alt_5
Sh2b1	SH2B adaptor protein 1	20399	chr7	133616608	133618509	0.5	0	complex
Vav2	vav 2 oncogene	22325	chr2	27192258	27281795	0.5	0	alt_cassette
Decr2	2-4-dienoyl-Coenzyme A reductase 2, peroxisomal	26378	chr17	26225922	26227062	0.5	0	alt_5
More inclusion in FUS/TLS KO embryonic brain and no change in FUS/TLS KD adult brain								
Mdm1	transformed mouse 3T3 cell double minute 1	17245	chr10	117589330	117594251	0	5.27	alt_cassette
Spp1	secreted phosphoprotein 1	20750	chr5	104866754	104868284	0	2.16	alt_cassette
Grik1	glutamate receptor, ionotropic, kainate 1	14805	chr16	87950386	87957734	0	1.15	alt_cassette
Inpp5f	inositol polyphosphate-5-phosphatase F	101490	chr7	135820320	135839950	0	1.14	alt_end
AK031234	RIKEN full-length enriched library, clone:1110004P21		chr4	126713873	126726509	0	1.12	alt_end
Ntn1	netrin G1	80883	chr3	109585829	109644427	0	1.06	alt_cassette
Polr3h	polymerase (RNA) III (DNA directed) polypeptide H	78929	chr15	81718657	81746747	0	1.04	alt_end
Wsb1	WD repeat and SOCS box-containing 1	78889	chr11	79055658	79057964	0	1.03	alt_3
Dlgap1	discs, large (<i>Drosophila</i>) homolog-associated protein 1	224997	chr17	71012149	71110414	0	0.9	complex
Pcmd1	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 1	319263	chr1	7150973	7159596	0	0.86	complex

Cep170	centrosomal protein 170	545389	chr1	178670220	178672631	0	0.85	alt_5
Tmem220	transmembrane protein 220	338369	chr11	66839440	66843467	0	0.82	alt_cassette
Mpzl1	myelin protein zero-like 1	68481	chr1	167523808	167534740	0	0.77	alt_cassette
Smarcal1	SWI/SNF related matrix associated, actin dependent regulator of chromatin, subfamily a-like 1	54380	chr1	72630012	72632212	0	0.77	alt_cassette
Mmp11	matrix metallopeptidase 11	17385	chr10	75386235	75386703	0	0.75	retained_int
Dnajc19	DnaJ (Hsp40) homolog, subfamily C, member 19	67713	chr3	33979059	33980128	0	0.75	alt_cassette
Rpgr	retinitis pigmentosa GTPase regulator	19893	chrX	9646690	9694569	0	0.75	alt_cassette
Prrt2	proline-rich transmembrane protein 2	69017	chr7	134162530	134162908	0	0.74	retained_int
Eif4h	eukaryotic translation initiation factor 4H	22384	chr5	135097956	135101235	0	0.74	alt_cassette
Lphn3	latrophilin 3	319387	chr5	82170171	82189651	0	0.73	alt_cassette
Lrch2	leucine-rich repeats and calponin homology (CH) domain containing 2	210297	chrX	143926630	143937926	0	0.73	alt_cassette
Cux1	cut-like homeobox 1	13047	chr5	136788878	136790176	0	0.73	alt_3
Rsbn1	robin, round spermatid basic protein 1	229675	chr3	103766538	103768496	0	0.73	retained_int
Nfib	nuclear factor I/B	18028	chr4	81942715	81966377	0	0.72	complex
2810046L04Rik	RIKEN cDNA 2810046L04 gene	212127	chr3	53268241	53273402	0	0.71	alt_cassette
Tex9	testis expressed gene 9	21778	chr9	72326209	72328424	0	0.7	alt_5
Gm13152	predicted gene 13152	195531	chr4	146550013	146887529	0	0.69	alt_end
Eif4a3	eukaryotic translation initiation factor 4A3	192170	chr11	119155997	119157401	0	0.69	alt_cassette
Adams10	a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 10	224697	chr17	33665971	33667077	0	0.69	retained_int
Cltb	clathrin, light polypeptide (Lcb)	74325	chr13	54695403	54700082	0	0.69	alt_cassette
Sfi1	Sfi1 homolog, spindle assembly associated (yeast)	78887	chr11	3087413	3088943	0	0.69	alt_5
Ndufs6	NADH dehydrogenase (ubiquinone) Fe-S protein 6	407785	chr13	73464917	73465786	0	0.69	alt_5
Morc3	microrchidia 3	338467	chr16	93844571	93845384	0	0.68	alt_cassette
Clip1	CAP-GLY domain containing linker protein 1	56430	chr5	124073259	124080482	0	0.67	alt_cassette
Ccdc85a	coiled-coil domain containing 85A	216613	chr11	28288948	28334080	0	0.67	alt_cassette
Rpl17	ribosomal protein L17	319195	chr18	75160877	75161340	0	0.67	alt_cassette
Sync	syncolin	68828	chr4	128964864	128970470	0	0.67	alt_start
Rin1	Ras and Rab interactor 1	225870	chr19	5050851	5051094	0	0.66	alt_5
Ciz1	CDKN1A interacting zinc finger protein 1	68379	chr2	32218818	32219324	0	0.65	retained_int
2500003M10Rik	RIKEN cDNA 2500003M10 gene	66511	chr3	90310183	90311466	0	0.65	complex
Dclre1c	DNA cross-link repair 1C, PSO2 homolog (S. cerevisiae)	227525	chr2	3351078	3354301	0	0.64	complex
Fndc4	fibronectin type III domain containing 4	64339	chr5	31595537	31595786	0	0.64	retained_int
Enox2	ecto-NOX disulfide-thiol exchanger 2	209224	chrX	46521941	46641298	0	0.63	alt_cassette
4931428F04Rik	RIKEN cDNA 4931428F04 gene	74356	chr8	107809769	107813303	0	0.63	alt_cassette
Usp14	ubiquitin specific peptidase 14	59025	chr18	10016642	10022815	0	0.63	alt_cassette
Zdhc3	zinc finger, DHHC domain containing 3	69035	chr9	122993428	123009380	0	0.62	alt_cassette
Cck	cholecystokinin	12424	chr9	121399319	121403434	0	0.62	alt_cassette
Gria3	glutamate receptor, ionotropic, AMPA3 (alpha 3)	53623	chrX	39007430	39022677	0	0.62	alt_cassette
Spc25	SPC25, NDC80 kinetochore complex component, homolog (S. cerevisiae)	66442	chr2	69042978	69044120	0	0.62	alt_cassette
Mbnl3	muscleblind-like 3 (Drosophila)	171170	chrX	48492545	48558950	0	0.62	alt_cassette
Phc3	polyhomeotic-like 3 (Drosophila)	241915	chr3	30830794	30835227	0	0.62	complex
Plch2	phospholipase C, eta 2	269615	chr4	154359074	154360827	0	0.62	complex

Snrnp70	small nuclear ribonucleoprotein 70 (U1)	20637	chr7	52636188	52639173	0	0.61	alt_cassette
Tsc22d2	TSC22 domain family, member 2	72033	chr3	58221535	58263252	0	0.61	complex
Ogdh	oxoglutarate dehydrogenase (lipoyamide)	18293	chr11	6213982	6216980	0	0.61	alt_cassette
Gpr64	G protein-coupled receptor 64	237175	chrX	156876245	156899274	0	0.61	alt_cassette
Zfp236	zinc finger protein 236	329002	chr18	82778867	82787101	0	0.6	alt_cassette
Gria4	glutamate receptor, ionotropic, AMPA4 (alpha 4)	14802	chr9	4417896	4480177	0	0.6	alt_end
5430435G22Rik	RIKEN cDNA 5430435G22 gene	226421	chr1	133608802	133609070	0	0.6	retained_int
E130306D19Rik	RIKEN cDNA E130306D19 gene	230098	chr4	43510562	43510851	0	0.6	retained_int
Ank3	ankyrin 3, epithelial	11735	chr10	69413806	69418673	0	0.6	alt_cassette
Mapt	microtubule-associated protein tau	17762	chr11	104171848	104182664	0	0.6	alt_cassette
Pak1ip1	PAK1 interacting protein 1	68083	chr13	41096762	41103405	0	0.6	alt_cassette
Ttl12	tubulin tyrosine ligase-like family, member 12	223723	chr15	83419131	83425379	0	0.6	alt_cassette
Sardh	sarcosine dehydrogenase	192166	chr2	27070705	27076162	0	0.6	alt_cassette
Khdc10	kelch domain containing 10	76788	chr6	30352150	30389643	0	0.59	alt_cassette
Mboat7	membrane bound O-acyltransferase domain containing 7	77582	chr7	3635587	3637275	0	0.59	retained_int
Tubgcp5	tubulin, gamma complex associated protein 5	233276	chr7	63072006	63074104	0	0.59	complex
Pum1	pumilio 1 (<i>Drosophila</i>)	80912	chr4	130257025	130297377	0	0.59	complex
Smpd4	sphingomyelin phosphodiesterase 4	77626	chr16	17625935	17626543	0	0.59	alt_cassette
Apip	APAF1 interacting protein	56369	chr2	102923192	102928738	0	0.59	alt_cassette
Exosc9	exosome component 9	50911	chr3	36452051	36452961	0	0.58	alt_cassette
Tgfb111	transforming growth factor beta 1 induced transcript 1	21804	chr7	135390522	135391933	0	0.57	alt_cassette
Nmt2	N-myristoyltransferase 2	18108	chr2	3222711	3226738	0	0.57	alt_cassette
Abcc5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5	27416	chr16	20401144	20402332	0	0.57	retained_int
Agpat3	1-acylglycerol-3-phosphate O-acyltransferase 3	28169	chr10	77792061	77814978	0	0.57	alt_start
Ywhaq	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta polypeptide	22630	chr12	21422992	21423442	0	0.57	alt_start
Ylpm1	YLP motif containing 1	56531	chr12	86356543	86374866	0	0.56	alt_cassette
Unc13a	unc-13 homolog A (<i>C. elegans</i>)	382018	chr8	74182354	74182546	0	0.56	retained_int
Svil	supervillin	225115	chr18	4920872	5037105	0	0.56	alt_cassette
Ctnna3	catenin (cadherin associated protein), alpha 3	216033	chr10	62892855	62920410	0	0.56	alt_start
Pnpla6	patatin-like phospholipase domain containing 6	50767	chr8	3515556	3516680	0	0.56	alt_cassette
Cdh7	cadherin 7, type 2	241201	chr1	111879096	111879842	0	0.56	alt_cassette
Arfrp1	ADP-ribosylation factor related protein 1	76688	chr2	181094444	181096095	0	0.56	alt_cassette
Dclk1	doublecortin-like kinase 1	13175	chr3	55320888	55337512	0	0.55	complex
Rabggta	Rab geranylgeranyl transferase, a subunit	56187	chr14	56340542	56340889	0	0.55	alt_cassette
Serac1	serine active site containing 1	321007	chr17	6067660	6070752	0	0.55	alt_cassette
Sgsm1	small G protein signaling modulator 1	52850	chr5	113672248	113687810	0	0.55	alt_end
Fbxw2	F-box and WD-40 domain protein 2	30050	chr2	34662797	34668334	0	0.54	alt_end
Atp6v1c2	ATPase, H ⁺ transporting, lysosomal V1 subunit C2	68775	chr12	17308021	17315077	0	0.54	alt_cassette
Nfkb2	nuclear factor of kappa light polypeptide gene enhancer in B cells 2, p49/p100	18034	chr19	46379233	46380306	0	0.54	alt_start
Rfesd	Rieske (Fe-S) domain containing	218341	chr13	76145734	76155462	0	0.54	alt_5
Pitpnc1	phosphatidylinositol transfer protein, cytoplasmic 1	71795	chr11	107073972	107087544	0	0.54	alt_cassette
Art3	ADP-ribosyltransferase 3	109979	chr5	92760938	92761924	0	0.53	alt_3

Cnksr2	connector enhancer of kinase suppressor of Ras 2	245684	chrX	154348182	154372571	0	0.53	alt_cassette
5930434B04Rik	RIKEN cDNA 5930434B04 gene	381356	chr2	26871129	26871462	0	0.53	retained_int
Tnrc6a	trinucleotide repeat containing 6a	233833	chr7	130323909	130324053	0	0.53	retained_int
Casc4	cancer susceptibility candidate 4	319996	chr2	121737777	121759213	0	0.53	alt_cassette
Megf11	multiple EGF-like-domains 11	214058	chr9	64541804	64543170	0	0.52	alt_cassette
Kif23	kinesin family member 23	71819	chr9	61779994	61783186	0	0.52	alt_cassette
Cpsf4	cleavage and polyadenylation specific factor 4	54188	chr5	145934328	145936979	0	0.52	alt_cassette
Gen1	Gen homolog 1, endonuclease (<i>Drosophila</i>)	209334	chr12	11267874	11272392	0	0.52	alt_cassette
R3hdm1	R3H domain 1 (binds single-stranded nucleic acids)	226412	chr1	130049976	130064469	0	0.52	twin_cassett
Armcx2	armadillo repeat containing, X-linked 2	67416	chrX	131342981	131343457	0	0.51	alt_3
Ebf1	early B cell factor 1	13591	chr11	44805092	44809507	0	0.51	alt_cassette
Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5	13002	chr2	181283546	181283977	0	0.51	alt_cassette
Vopp1	vesicular, overexpressed in cancer, prosurvival protein 1	232023	chr6	57740009	57774941	0	0.51	alt_cassette
Gnpnat1	glucosamine-phosphate N-acetyltransferase 1	54342	chr14	46001338	46003089	0	0.51	alt_cassette
Scaf8	SR-related CTD-associated factor 8	106583	chr17	3115418	3145074	0	0.51	alt_cassette
Lsm14b	LSM14 homolog B (SCD6, <i>S. cerevisiae</i>)	241846	chr2	179766233	179766765	0	0.51	alt_cassette
Cops3	COP9 (constitutive photomorphogenic) homolog, subunit 3 (<i>Arabidopsis thaliana</i>)	26572	chr11	59643721	59646554	0	0.51	alt_cassette
Tctn2	tectonic family member 2	67978	chr5	125048965	125049143	0	0.5	retained_int
Flt1	FMS-like tyrosine kinase 1	14254	chr5	148373771	148450800	0	0.5	alt_end
Sfxn5	sideroflexin 5	94282	chr6	85217865	85249533	0	0.5	alt_end

Supplementary Table 6: Splicing changes upon FUS/TLS or TDP-43 depletion in adult brain

Gene Symbol	Gene name	Entrez Gene ID	Chromosome	Start	End	Splicing index FUS/TLS KD	Splicing index TDP43 KD	Type of event
Co-regulated events: more exclusion in FUS/TLS KD or TDP-43 KD								
Fus	fusion, derived from t(12;16) malignant liposarcoma (human)	233908	chr7	135116284	135117913	-1	-0.65	retained_int
Ypel3	yippee-like 3 (Drosophila)	66090	chr7	133921467	133921820	-0.94	-0.72	alt_cassette
Gria1	glutamate receptor, ionotropic, AMPA1 (alpha 1)	14799	chr11	57102997	57131167	-0.92	-0.93	mutually_exc
Dtnb	dystrobrevin, beta	13528	chr12	3772726	3779639	-0.91	-0.74	complex
Dnaja4	DnaJ (Hsp40) homolog, subfamily A, member 4	58233	chr9	54547190	54547528	-0.91	-0.75	alt_start
Ndrg2	N-myc downstream regulated gene 2	29811	chr14	52530460	52531140	-0.75	-0.94	alt_cassette
Kcnj3	potassium inwardly-rectifying channel, subfamily J, member 3	16519	chr2	55290313	55447221	-0.75	-0.69	alt_cassette
Rit1	Ras-like without CAAX 1	19769	chr3	88521392	88521523	-0.69	-0.68	alt_3
Ppp3ca	protein phosphatase 3, catalytic subunit, alpha isoform	19055	chr3	136591583	136597992	-0.68	-1.77	alt_cassette
Ckif	chemokine-like factor	75458	chr8	106781343	106788836	-0.67	-1.23	Ncomplex
Rgs3	regulator of G-protein signaling 3	50780	chr4	62313870	62350532	-0.67	-0.62	alt_end
Lsamp	limbic system-associated membrane protein	268890	chr16	39984483	41533565	-0.66	-0.99	alt_start
Cd68	CD68 antigen	12514	chr11	69478868	69479004	-0.65	-0.98	alt_5
Hyal3	hyaluronoglucosaminidase 3	109685	chr9	107479389	107480679	-0.65	-0.57	alt_3
Agap2	ArfGAP with GTPase domain, ankyrin repeat and PH domain 2	216439	chr10	126526414	126527482	-0.63	-0.79	alt_cassette
Mcm6	minichromosome maintenance deficient 6 (MIS5 homolog, <i>S. pombe</i>) (<i>S. cerevisiae</i>)	17219	chr1	130228628	130230093	-0.6	-0.83	retained_int
1700088E04Rik	RIKEN cDNA 1700088E04 gene	27660	chr15	78969710	78971331	-0.6	-1.02	alt_cassette
Prkcd	protein kinase C, delta	18753	chr14	31415600	31415922	-0.6	-1.03	complex
Rreb1	ras responsive element binding protein 1	68750	chr13	37985853	37990280	-0.59	-1.03	alt_5
Insl3	insulin-like 3	16336	chr8	74204696	74204781	-0.59	-0.94	retained_int
Th11	TH1-like homolog (Drosophila)	57314	chr2	174249629	174250127	-0.58	-0.65	alt_5
Anapc13	anaphase promoting complex subunit 13	69010	chr9	102528676	102532093	-0.58	-0.56	alt_5
Cadps	Ca2+-dependent secretion activator	27062	chr14	13286833	13298372	-0.58	-0.87	alt_cassette
Tmem50b	transmembrane protein 50B	77975	chr16	91576403	91580447	-0.57	-1.38	alt_cassette
Pgcp	plasma glutamate carboxypeptidase	54381	chr15	33142754	33179680	-0.55	-0.51	alt_5
Slc26a11	solute carrier family 26, member 11	268512	chr11	119223610	119224713	-0.55	-0.5	retained_int
Fkbp7	FK506 binding protein 7	14231	chr2	76501101	76509753	-0.55	-0.5	alt_end
Pex5l	peroxisomal biogenesis factor 5-like	58869	chr3	32979458	33041770	-0.54	-0.84	alt_cassette
Sgcz	sarcoglycan zeta	244431	chr8	38626317	39015917	-0.53	-1.21	twin_cassett
Reep6	receptor accessory protein 6	70335	chr10	79796879	79797854	-0.53	-0.84	alt_cassette
Zcrb1	zinc finger CCHC-type and RNA binding motif 1	67197	chr15	93221996	93226017	-0.53	-0.55	alt_cassette
Ttc4	tetratricopeptide repeat domain 4	72354	chr4	106350907	106351487	-0.51	-0.59	alt_start
Rarb	retinoic acid receptor, beta	218772	chr14	17381076	17651648	-0.51	-0.58	alt_start
AI316807	expressed sequence AI316807	102032	chr8	23584052	23586977	-0.51	-0.55	alt_cassette
Heatr5a	HEAT repeat containing 5A	320487	chr12	53011060	53015981	-0.5	-0.55	alt_cassette
Co-regulated events: more inclusion in FUS/TLS KD or TDP-43 KD								
Kcnip4	Kv channel interacting protein 4	80334	chr5	48900897	49280772	2.22	1.06	complex
Nrxn1	neurexin I	18189	chr17	91020231	91022759	1.27	0.89	retained_int

D4Wsu53e	DNA segment, Chr 4, Wayne State University 53, expressed	27981	chr4	134481347	134482649	1.25	0.86	alt_cassette
Dtna	dystrobrevin alpha	13527	chr18	23633743	23693662	1.01	0.69	alt_cassette
Lrrkip1	leucine rich repeat (in FLII) interacting protein 1	16978	chr1	92975658	92981522	0.88	0.61	alt_cassette
Apobec1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	11810	chr6	122531748	122541125	0.86	1.6	alt_cassette
Vamp1	vesicle-associated membrane protein 1	22317	chr6	125169655	125170067	0.85	1.48	retained_int
Bcas1	breast carcinoma amplified sequence 1	76960	chr2	170174963	170204222	0.81	0.9	complex
Tia1	cytotoxic granule-associated RNA binding protein 1	21841	chr6	86368926	86370317	0.78	0.85	alt_cassette
Lyl1	lymphoblastomic leukemia 1	17095	chr8	87226569	87226710	0.78	1.17	alt_5
Clk4	CDC like kinase 4	12750	chr11	51080833	51085301	0.76	0.56	alt_cassette
Dapp1	dual adaptor for phosphotyrosine and 3-phosphoinositides 1	26377	chr3	137612721	137644303	0.75	1.04	alt_cassette
Lrp8	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	16975	chr4	107520151	107523933	0.75	1.87	complex
Ift46	intraflagellar transport 46 homolog (Chlamydomonas)	76568	chr9	44581867	44590183	0.74	0.74	alt_cassette
St3gal3	ST3 beta-galactoside alpha-2,3-sialyltransferase 3	20441	chr4	117704487	117780153	0.73	0.62	alt_cassette
Tpd52l2	tumor protein D52-like 2	66314	chr2	181236758	181242870	0.72	0.73	alt_cassette
Sorbs2	sorbin and SH3 domain containing 2	234214	chr8	46821556	46830773	0.71	0.52	alt_cassette
Osbpl9	oxysterol binding protein-like 9	100273	chr4	108760090	108771107	0.69	0.61	alt_cassette
Ttc3	tetratricopeptide repeat domain 3	22129	chr16	94624975	94632439	0.68	1.89	alt_cassette
Lace1	lactation elevated 1	215951	chr10	42146393	42174113	0.67	0.84	alt_cassette
Pbrm1	polybromo 1	66923	chr14	31920496	31930198	0.65	0.66	alt_cassette
Zfp207	zinc finger protein 207	22680	chr11	80202832	80204832	0.64	0.76	alt_cassette
Msra	methionine sulfoxide reductase A	110265	chr14	64932572	65073726	0.64	0.71	alt_start
Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	74182	chr2	132382712	132390362	0.64	0.64	alt_cassette
Islr2	immunoglobulin superfamily containing leucine-rich repeat 2	320563	chr9	58047770	58049107	0.64	3.12	alt_cassette
Usp15	ubiquitin specific peptidase 15	14479	chr10	122583974	122600669	0.63	0.65	complex
1700017B05Rik	RIKEN cDNA 1700017B05 gene	74211	chr9	57106764	57110236	0.6	1.34	alt_cassette
Polg2	polymerase (DNA directed), gamma 2, accessory subunit	50776	chr11	106638875	106640397	0.6	0.5	complex
Etl4	enhancer trap locus 4	208618	chr2	20211668	20451585	0.6	0.73	alt_cassette
Asap2	ArfGAP with SH3 domain, ankyrin repeat and PH domain 2	211914	chr12	21260328	21263870	0.59	1.01	alt_cassette
Kcnq3	potassium voltage-gated channel, Shal-related family, member 3	56543	chr3	105468464	105470997	0.58	1.33	alt_cassette
Ppap2c	phosphatidic acid phosphatase type 2C	50784	chr10	78993517	78996368	0.57	0.51	alt_cassette
Ntan1	N-terminal Asn amidase	18203	chr16	13832527	13835228	0.57	0.52	alt_cassette
Golga4	golgi autoantigen, golgin subfamily a, 4	54214	chr9	118446041	118448015	0.57	0.69	alt_cassette
Ptpiad2	protein tyrosine phosphatase-like A domain containing 2	66775	chr4	88042047	88065602	0.55	0.85	alt_end
Gas2l1	growth arrest-specific 2 like 1	78926	chr11	4954133	4962157	0.55	0.51	alt_end
Macrod2	MACRO domain containing 2	72899	chr2	140226714	140650817	0.54	0.96	alt_end
C920009B18Rik	RIKEN cDNA C920009B18 gene	606736	chr10	22027104	22041571	0.53	1.29	alt_end
Sap30bp	SAP30 binding protein	57230	chr11	115796769	115813301	0.53	0.85	alt_cassette
Gpx3	glutathione peroxidase 3	14778	chr11	54722621	54723604	0.52	1.05	complex
Ica1	islet cell autoantigen 1	15893	chr6	8603535	8606361	0.52	0.52	alt_cassette
Cmkir1	chemokine-like receptor 1	14747	chr5	114062465	114066625	0.52	0.76	complex
Vav2	vav 2 oncogene	22325	chr2	27192258	27281795	0.5	0.61	alt_cassette
Anti-regulated events in adult brain with FUS/TLS KD or TDP-43 KD								
Ncor1	nuclear receptor co-repressor 1	20185	chr11	62214769	62217300	-0.68	0.75	alt_cassette

Ptprs	protein tyrosine phosphatase, receptor type, S	19280	chr17	56565927	56567362	0.52	-0.77	alt_cassette
Sqrdl	sulfide quinone reductase-like (yeast)	59010	chr2	122591124	122610679	0.66	-0.64	Ncomplex
Rsrc2	arginine-serine-rich coiled-coil 2	208606	chr5	124195598	124199297	0.66	-0.53	alt_cassette
Mag	myelin-associated glycoprotein	17136	chr7	31684717	31685656	0.78	-0.93	alt_cassette
More exclusion in FUS/TLS KD and no change in TDP-43 KD								
Bcas1	breast carcinoma amplified sequence 1	76960	chr2	170204429	170212662	-1.48	0	alt_cassette
Ptk2b	PTK2 protein tyrosine kinase 2 beta	19229	chr14	66777514	66784100	-1.28	0	alt_cassette
Eno2	enolase 2, gamma neuronal	13807	chr6	124713942	124717050	-1.2	0	twin_cassett
Clk1	CDC-like kinase 1	12747	chr1	58477055	58477926	-1.03	0	retained_int
Taz	tafazzin	66826	chrX	71533852	71534443	-1.01	0	alt_cassette
Cdk19	cyclin-dependent kinase 19	78334	chr10	40156018	40186443	-0.99	0	alt_cassette
Srpk1	serine/arginine-rich protein specific kinase 1	20815	chr17	28736814	28737813	-0.91	0	alt_cassette
R3hdm1	R3H domain 1 (binds single-stranded nucleic acids)	226412	chr1	130078769	130083355	-0.9	0	alt_cassette
Tmem180	transmembrane protein 180	75146	chr19	46443823	46446671	-0.9	0	alt_cassette
Ttc3	tetratricopeptide repeat domain 3	22129	chr16	94605673	94606390	-0.87	0	alt_cassette
Nrcam	neuron-glia-CAM-related cell adhesion molecule	319504	chr12	45645882	45648218	-0.84	0	alt_cassette
BC048546	cDNA sequence BC048546	232400	chr6	128493359	128531624	-0.83	0	alt_start
Tbp	TATA box binding protein	21374	chr17	15650585	15652579	-0.82	0	alt_cassette
Epb4.1I2	erythrocyte protein band 4.1-like 2	13822	chr10	25215397	25221629	-0.8	0	complex
Ppip5k1	diphosphoinositol pentakisphosphate kinase 1	327655	chr2	121147528	121153380	-0.8	0	alt_cassette
Bnip2	BCL2/adenovirus E1B interacting protein 2	12175	chr9	69851474	69854870	-0.8	0	alt_cassette
Ddhd1	DDHD domain containing 1	114874	chr14	46215339	46221239	-0.79	0	alt_cassette
Aktip	thymoma viral proto-oncogene 1 interacting protein	14339	chr8	93653704	93654940	-0.79	0	alt_3
Fam126b	family with sequence similarity 126, member B	213056	chr1	58587103	58592233	-0.77	0	alt_cassette
Gtf2ird1	general transcription factor II I repeat domain-containing 1	57080	chr5	134855890	134858650	-0.77	0	alt_cassette
Ccl20	chemokine (C-C motif) ligand 20	20297	chr1	83114651	83115270	-0.76	0	retained_int
Esyt2	extended synaptotagmin-like protein 2	52635	chr12	117586787	117595584	-0.73	0	complex
Meaf6	MYST/Esa1-associated factor 6	70088	chr4	124784770	124785587	-0.72	0	complex
Zc3h14	zinc finger CCCH type containing 14	75553	chr12	100012529	100021791	-0.72	0	twin_cassett
Tmem116	transmembrane protein 116	77462	chr5	121943784	121967809	-0.71	0	complex
Gadl1	glutamate decarboxylase-like 1	73748	chr9	115939948	115983465	-0.71	0	alt_end
Rab7	RAB7, member RAS oncogene family	19349	chr6	87963692	87965625	-0.68	0	alt_cassette
Vldlr	very low density lipoprotein receptor	22359	chr19	27309402	27312543	-0.68	0	alt_cassette
Smarc1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	57376	chr11	99082029	99089831	-0.68	0	complex
Ncapd3	non-SMC condensin II complex, subunit D3	78658	chr9	26837759	26889990	-0.68	0	alt_start
Tjap1	tight junction associated protein 1	74094	chr17	46400759	46401831	-0.67	0	complex
Cartpt	CART prepropeptide	27220	chr13	100669995	100670430	-0.67	0	alt_3
Me2	malic enzyme 2, NAD(+) -dependent, mitochondrial	107029	chr18	73929693	73957482	-0.67	0	alt_end
Samd8	sterile alpha motif domain containing 8	67630	chr14	22570002	22594184	-0.67	0	alt_5
Mvd	mevalonate (diphospho) decarboxylase	192156	chr8	124963652	124964081	-0.67	0	alt_cassette
Ndst4	N-deacetylase/N-sulfotransferase (heparin glucosaminyl) 4	64580	chr3	125107008	125386057	-0.66	0	alt_start
Hmgn3	high mobility group nucleosomal binding domain 3	94353	chr9	83004036	83004599	-0.66	0	retained_int

Cstf3	cleavage stimulation factor, 3' pre-RNA, subunit 3	228410	chr2	104449129	104449247	-0.66	0	retained_int
Ankrd6	ankyrin repeat domain 6	140577	chr4	32947563	33037801	-0.66	0	Ncomplex
Lmbr1	limb region 1	56873	chr5	29691746	29704666	-0.65	0	alt_3
Podnl1	podocan-like 1	244550	chr8	86651793	86652468	-0.65	0	retained_int
AK050217	RIKEN full-length enriched library, clone:9430002106	319572	chr10	70634216	70634611	-0.65	0	retained_int
Elov6	ELOVL family member 6, elongation of long chain fatty acids (yeast)	170439	chr3	129308090	129335977	-0.65	0	alt_cassette
Rbm5	RNA binding motif protein 5	83486	chr9	107662180	107662652	-0.64	0	retained_int
Epb4.9	dematin	13829	chr14	71017247	71018045	-0.64	0	alt_cassette
2700029M09Rik	RIKEN cDNA 2700029M09 gene	72612	chr8	63372657	63375534	-0.64	0	alt_cassette
Papola	poly (A) polymerase alpha	18789	chr12	107045428	107047553	-0.64	0	alt_cassette
Kcnab3	potassium voltage-gated channel, shaker-related subfamily, beta member 3	16499	chr11	69139759	69141621	-0.64	0	alt_start
Sfrs18	splicing factor, arginine-serine-rich 18	66625	chr4	21796762	21797498	-0.64	0	retained_int
Myo5a	myosin VA	17918	chr9	75041944	75045449	-0.63	0	alt_cassette
Pank2	pantothenate kinase 2	74450	chr2	131099856	131113209	-0.63	0	complex
Ogt	O-linked N-acetylglucosamine (GlcNAc) transferase (UDP-N-acetylglucosamine:polypeptide-N-acetylglucosaminyl transferase)	108155	chrX	98835661	98838344	-0.62	0	alt_3
Hif1a	hypoxia inducible factor 1, alpha subunit	15251	chr12	75041618	75042716	-0.62	0	alt_3
St3gal3	ST3 beta-galactoside alpha-2,3-sialyltransferase 3	20441	chr4	117780298	117807338	-0.62	0	alt_5
Cd63	CD63 antigen	12512	chr10	128345974	128347450	-0.62	0	alt_start
Nfyb	nuclear transcription factor-Y beta	18045	chr10	82214210	82215151	-0.62	0	retained_int
MutYh	mutY homolog (E. coli)	70603	chr4	116490622	116490866	-0.62	0	retained_int
Tecr	trans-2,3-enoyl-CoA reductase	106529	chr8	86097770	86098377	-0.61	0	alt_cassette
Tk1	thymidine kinase 1	21877	chr11	117686095	117687028	-0.61	0	alt_cassette
Erc2	ELKS/RAB6-interacting/CAST family member 2	238988	chr14	29116196	29288788	-0.61	0	alt_cassette
Uba3	ubiquitin-like modifier activating enzyme 3	22200	chr6	97149315	97153467	-0.61	0	alt_cassette
Bex1	brain expressed gene 1	19716	chrX	132749102	132749505	-0.61	0	alt_5
D3Ertd751e	DNA segment, Chr 3, ERATO Doi 751, expressed	73852	chr3	41546611	41550469	-0.61	0	complex
Coq7	demethyl-Q 7	12850	chr7	125671932	125673072	-0.6	0	retained_int
Abhd16a	abhydrolase domain containing 16A	193742	chr17	35237613	35237927	-0.6	0	alt_3
Dusp3	dual specificity phosphatase 3 (vaccinia virus phosphatase VH1-related)	72349	chr11	101836253	101845926	-0.6	0	alt_cassette
Cpped1	calcineurin-like phosphoesterase domain containing 1	223978	chr16	11828267	11887670	-0.6	0	alt_end
Chd3	chromodomain helicase DNA binding protein 3	216848	chr11	69162023	69162423	-0.59	0	alt_cassette
Chpt1	choline phosphotransferase 1	212862	chr10	87935729	87938170	-0.58	0	complex
Myo6	myosin VI	17920	chr9	80140324	80146952	-0.58	0	twin_cassett
Pclo	piccolo (presynaptic cytomatrix protein)	26875	chr5	14714598	14718856	-0.58	0	alt_3
Herc4	hect domain and RLD 4	67345	chr10	62708853	62726794	-0.58	0	alt_cassette
Tmem8	transmembrane protein 8 (five membrane-spanning domains)	60455	chr17	26257387	26258505	-0.58	0	alt_cassette
Tmed9	transmembrane emp24 protein transport domain containing 9	67511	chr13	55694312	55694861	-0.58	0	alt_start
Ppli3	peptidylprolyl isomerase (cyclophilin)-like 3	70225	chr1	58501483	58501989	-0.58	0	alt_5
Dhrs3	dehydrogenase/reductase (SDR family) member 3	20148	chr4	144508697	144509287	-0.57	0	alt_3
Nfasc	neurofascin	269116	chr1	134518200	134528261	-0.57	0	alt_cassette
Angel2	angel homolog 2 (Drosophila)	52477	chr1	192761579	192769617	-0.57	0	alt_end
Dpys5	dihydropyrimidinase-like 5	65254	chr5	31014375	31047594	-0.57	0	alt_5

Ccdc141	coiled-coil domain containing 141	545428	chr2	76913065	76946419	-0.57	0	alt_cassette
Rasgrp2	RAS, guanyl releasing protein 2	19395	chr19	6403563	6408954	-0.57	0	alt_end
Mlx	MAX-like protein X	21428	chr11	100948681	100949067	-0.57	0	alt_5
Slc7a6	solute carrier family 7 (cationic amino acid transporter, y+ system), member 6	330836	chr8	108716383	108717050	-0.56	0	retained_int
Hsd17b12	hydroxysteroid (17-beta) dehydrogenase 12	56348	chr2	93872853	93955149	-0.55	0	alt_end
Zmym3	zinc finger, MYM-type 3	56364	chrX	98612649	98614154	-0.55	0	alt_3
Tfdp2	transcription factor Dp 2	211586	chr9	96188141	96195383	-0.55	0	alt_cassette
4930417O13Rik	RIKEN cDNA 4930417O13 gene	73870	chr6	125216544	125220340	-0.55	0	alt_3
Wdr33	WD repeat domain 33	74320	chr18	31995135	32048794	-0.55	0	alt_end
Rexo2	REX2, RNA exonuclease 2 homolog (S. cerevisiae)	104444	chr9	48282618	48283224	-0.55	0	alt_3
Phldb1	pleckstrin homology-like domain, family B, member 1	102693	chr9	44495781	44496699	-0.54	0	alt_cassette
Pcsk7	proprotein convertase subtilisin/kexin type 7	18554	chr9	45734911	45735657	-0.54	0	alt_cassette
Ablim1	actin-binding LIM protein 1	226251	chr19	57119462	57123951	-0.54	0	alt_cassette
1110002L01Rik	RIKEN cDNA 1110002L01	100043040	chr12	3406711	3407700	-0.54	0	alt_5
Pptrz1	protein tyrosine phosphatase, receptor type Z, polypeptide 1	19283	chr6	22950179	22957294	-0.54	0	alt_5
Traf3	TNF receptor-associated factor 3	22031	chr12	112486857	112490874	-0.54	0	alt_cassette
Akap2	A kinase (PRKA) anchor protein 2	11641	chr4	57447346	57909856	-0.54	0	Ncomplex
Kif21a	kinesin family member 21A	16564	chr15	90779475	90786725	-0.54	0	alt_cassette
Nbr1	neighbor of Brca1 gene 1	17966	chr11	101413468	101415301	-0.54	0	alt_start
Pcmd1	protein-L-isoaspartate (D-aspartate) O-methyltransferase domain containing 1	319263	chr1	7079000	7150972	-0.53	0	alt_start
Zfp553	zinc finger protein 553	233887	chr7	134377000	134378777	-0.53	0	alt_5
Senp7	SUMO1/sentrin specific peptidase 7	66315	chr16	56097544	56123892	-0.52	0	alt_cassette
Stxbp5l	syntaxin binding protein 5-like	207227	chr16	37140169	37174382	-0.52	0	alt_cassette
Stambpl1	STAM binding protein like 1	76630	chr19	34267085	34294676	-0.52	0	alt_5
Spryd3	SPRY domain containing 3	223918	chr15	101960844	101961096	-0.52	0	retained_int
Qars	glutaminyl-tRNA synthetase	97541	chr9	108417364	108417437	-0.52	0	retained_int
0610011L14Rik	RIKEN cDNA 0610011L14 gene	68295	chr2	156373619	156376384	-0.52	0	alt_cassette
Fam63a	family with sequence similarity 63, member A	75007	chr3	95087547	95091566	-0.52	0	alt_cassette
Mtap1s	microtubule-associated protein 1S	270058	chr8	73435807	73436432	-0.52	0	complex
P2ry14	purinergic receptor P2Y, G-protein coupled, 14	140795	chr3	58920213	58957414	-0.52	0	Ncomplex
Nlgn3	neuroligin 3	245537	chrX	98497770	98502414	-0.51	0	alt_cassette
Alkbh7	alkB, alkylation repair homolog 7 (E. coli)	66400	chr17	57136970	57138114	-0.51	0	alt_cassette
Uggt2	UDP-glucose glycoprotein glucosyltransferase 2	66435	chr14	119406549	119408293	-0.51	0	alt_start
Zc3h14	zinc finger CCCH type containing 14	75553	chr12	99985732	99994394	-0.51	0	alt_cassette
9230114K14Rik	RIKEN cDNA 9230114K14 gene	414108	chr5	52588242	52603389	-0.51	0	alt_end
Tox4	TOX high mobility group box family member 4	268741	chr14	52906664	52906975	-0.51	0	retained_int
Vezt	vezatin, adherens junctions transmembrane protein	215008	chr10	93430844	93436579	-0.51	0	alt_end
Dnajc1	DnaJ (Hsp40) homolog, subfamily C, member 1	13418	chr2	18215671	18313918	-0.51	0	complex
P2rx2	purinergic receptor P2X, ligand-gated ion channel, 2	231602	chr5	110771654	110771798	-0.51	0	alt_3
Syt12	synaptotagmin-like 2	83671	chr7	97540963	97543672	-0.51	0	alt_cassette
Tcf20	transcription factor 20	21411	chr15	82640217	82646040	-0.51	0	alt_cassette
Ptdss1	phosphatidylserine synthase 1	19210	chr13	67068407	67067325	-0.51	0	alt_cassette
Olf1344	olfactory receptor 1344	257882	chr7	6379866	6393578	-0.5	0	alt_end

Dyrk1b	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1b	13549	chr7	28970455	28970852	-0.5	0	alt_3
More exclusion in TDP-43 KD and no change in FUS/TLS KD								
Cxcl10	chemokine (C-X-C motif) ligand 10	15945	chr5	92776411	92776830	0	-3.03	retained_int
Cntrnap2	contactin associated protein-like 2	66797	chr6	45010086	47221138	0	-2.7	alt_start
Rbm33	RNA binding motif protein 33	381626	chr5	28665828	28679032	0	-1.92	alt_cassette
Rsd2	radical S-adenosyl methionine domain containing 2	58185	chr12	27135640	27138882	0	-1.78	alt_cassette
Chl1	cell adhesion molecule with homology to L1CAM	12661	chr6	103661240	103665261	0	-1.72	alt_cassette
H2-Aa	histocompatibility 2, class II antigen A, alpha	14960	chr17	34420781	34421253	0	-1.7	alt_3
Trp53inp2	transformation related protein 53 inducible nuclear protein 2	68728	chr2	155211180	155211757	0	-1.65	alt_3
G6pc2	glucose-6-phosphatase, catalytic, 2	14378	chr2	69061100	69064624	0	-1.6	alt_cassette
Rnf213	ring finger protein 213	672511	chr11	119330374	119331445	0	-1.6	retained_int
Cd44	CD44 antigen	12505	chr2	102668767	102693171	0	-1.56	complex
Emp1	epithelial membrane protein 1	13730	chr6	135327306	135329919	0	-1.52	alt_cassette
Parp14	poly (ADP-ribose) polymerase family, member 14	547253	chr16	35832963	35866234	0	-1.5	alt_end
Il2rg	interleukin 2 receptor, gamma chain	16186	chrX	98459725	98462316	0	-1.49	alt_end
Lgals9	lectin, galactose binding, soluble 9	16859	chr11	78781535	78784818	0	-1.48	alt_cassette
Fcgr2b	Fc receptor, IgG, low affinity IIb	14130	chr1	172891364	172895832	0	-1.44	alt_cassette
Ms4a7	membrane-spanning 4-domains, subfamily A, member 7	109225	chr19	11396072	11396788	0	-1.4	retained_int
Ms4a6c	membrane-spanning 4-domains, subfamily A, member 6C	73656	chr19	11547017	11556682	0	-1.35	alt_end
Rcan1	regulator of calcineurin 1	54720	chr16	92397661	92466259	0	-1.35	alt_start
Rbffox1	RNA binding protein, fox-1 homolog (C. elegans) 1	268859	chr16	6487911	7224403	0	-1.31	alt_start
Runx1	runt related transcription factor 1	12394	chr16	92696256	92826199	0	-1.24	alt_start
Gm885	predicted gene 885	380732	chr11	106616365	106622496	0	-1.23	alt_cassette
Fxyd5	FXYD domain-containing ion transport regulator 5	18301	chr7	31818037	31820227	0	-1.22	retained_int
Ms4a7	membrane-spanning 4-domains, subfamily A, member 7	109225	chr19	11396890	11398911	0	-1.22	retained_int
Tor1aip1	torsin A interacting protein 1	208263	chr1	157865389	157869429	0	-1.2	alt_cassette
Gpnmb	glycoprotein (transmembrane) nmb	93695	chr6	48986771	48992786	0	-1.18	alt_cassette
Cd22	CD22 antigen	12483	chr7	31663126	31665361	0	-1.17	Ncomplex
Cd200r4	CD200 receptor 4	239849	chr16	44821072	44832187	0	-1.16	alt_cassette
Pqlc3	PQ loop repeat containing	217430	chr12	16995453	17000258	0	-1.15	alt_end
Esrrg	estrogen-related receptor gamma	26381	chr1	189432907	189867212	0	-1.15	alt_start
Rp1	retinitis pigmentosa 1 (human)	19888	chr1	4342918	4399322	0	-1.15	alt_start
Poldip3	polymerase (DNA-directed), delta interacting protein 3	73826	chr15	82965819	82968561	0	-1.14	alt_cassette
Spp1	secreted phosphoprotein 1	20750	chr5	104864215	104865393	0	-1.14	alt_5
Pcdh17	protocadherin 17 precursor	219228	chr14	84865141	84870474	0	-1.13	alt_cassette
Lcp1	lymphocyte cytosolic protein 1	18826	chr14	75530965	75597883	0	-1.13	Ncomplex
Fgf14	fibroblast growth factor 14	14169	chr14	124535514	125076349	0	-1.11	alt_start
Tsn	translin	22099	chr1	120197594	120201797	0	-1.1	alt_cassette
Apobec3	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 3	80287	chr15	79728655	79735873	0	-1.1	alt_cassette
Tor3a	torsin family 3, member A	30935	chr1	158599767	158603660	0	-1.09	alt_5
Ddx60	DEAD (Asp-Glu-Ala-Asp) box polypeptide 60	234311	chr8	64407073	64418795	0	-1.09	alt_cassette
Isg20	interferon-stimulated protein	57444	chr7	86061619	86064931	0	-1.08	alt_3
Nfe2l2	nuclear factor, erythroid derived 2, like 2	18024	chr2	75513575	75542420	0	-1.07	alt_end

Lyz1	lysozyme 1	17110	chr10	116715777	116729924	0	-1.07	alt_start
Sh3bp2	SH3-domain binding protein 2	24055	chr5	34868494	34894209	0	-1.07	Ncomplex
Bnip3l	BCL2/adenovirus E1B interacting protein 3-like	12177	chr14	67606612	67607971	0	-1.06	alt_cassette
Mmp12	matrix metallopeptidase 12	17381	chr9	7347538	7348584	0	-1.05	complex
Xdh	xanthine dehydrogenase	22436	chr17	74284203	74293186	0	-1.04	complex
Ptbp2	polypyrimidine tract binding protein 2	56195	chr3	119427084	119429004	0	-1.02	alt_cassette
Macf1	microtubule-actin crosslinking factor 1	11426	chr4	123029194	123032298	0	-1.02	alt_cassette
Abr	active BCR-related gene	109934	chr11	76277792	76300038	0	-1.02	alt_start
Stab1	stabilin 1	192187	chr14	31956200	31956303	0	-1.02	retained_int
Rbl1	retinoblastoma-like 1 (p107)	19650	chr2	156992970	157001263	0	-1.01	alt_end
Prkcd	protein kinase C, delta	18753	chr14	31411903	31414354	0	-0.98	alt_end
Pon3	paraoxonase 3	269823	chr6	5190958	5196298	0	-0.97	alt_5
Epb4.1	protein 4.1	269587	chr4	131491782	131513557	0	-0.97	alt_cassette
Egr2	early growth response 2	13654	chr10	67000928	67001028	0	-0.96	retained_int
Il2rg	interleukin 2 receptor, gamma chain	16186	chrX	98462834	98463049	0	-0.96	retained_int
Vps13c	vacuolar protein sorting 13C (yeast)	320528	chr9	67708692	67718982	0	-0.96	twin_cassett
Abcc3	ATP-binding cassette, sub-family C (CFTR/MRP), member 3	76408	chr11	94235348	94236035	0	-0.93	alt_5
Myl12a	myosin, light chain 12A, regulatory, non-sarcomeric	67268	chr17	71346235	71351448	0	-0.93	alt_cassette
Bai3	brain-specific angiogenesis inhibitor 3	210933	chr1	25285392	25886552	0	-0.93	alt_start
Nfatc1	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 1	18018	chr18	80895395	80909797	0	-0.93	alt_start
Rhoj	ras homolog gene family, member J	80837	chr12	76495051	76502442	0	-0.92	alt_end
Isg20	interferon-stimulated protein	57444	chr7	86058343	86059207	0	-0.92	Ncomplex
Tcirg1	T cell, immune regulator 1, ATPase, H ⁺ transporting, lysosomal V0 protein A3	27060	chr19	3898638	3898717	0	-0.92	retained_int
Dst	dystonin	13518	chr1	34356683	34359674	0	-0.91	alt_cassette
Evl	Ena-vasodilator stimulated phosphoprotein	14026	chr12	109874094	109886524	0	-0.91	alt_cassette
Folr2	folate receptor 2 (fetal)	14276	chr7	108992338	109005708	0	-0.91	alt_start
Tcf12	transcription factor 12	21406	chr9	71733095	71958641	0	-0.91	alt_start
Tgtp1	T cell specific GTPase 1	21822	chr11	48718157	48805505	0	-0.9	alt_end
Aqp4	aquaporin 4	11829	chr18	15558511	15569491	0	-0.9	Ncomplex
Tcirg1	T cell, immune regulator 1, ATPase, H ⁺ transporting, lysosomal V0 protein A3	27060	chr19	3904705	3907112	0	-0.9	Ncomplex
Prr13	proline rich 13	66151	chr15	102289686	102289894	0	-0.9	retained_int
Il2rg	interleukin 2 receptor, gamma chain	16186	chrX	98462459	98462649	0	-0.9	retained_int
Cd74	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)	16149	chr18	60970072	60971512	0	-0.88	alt_cassette
Camta1	calmodulin binding transcription activator 1	100072	chr4	150436964	150448096	0	-0.86	alt_cassette
Ralyl	RALY RNA binding protein-like	76897	chr3	13776824	14039713	0	-0.86	alt_start
Furin	furin (paired basic amino acid cleaving enzyme)	18550	chr7	87543814	87550317	0	-0.86	alt_start
Zfp608	zinc finger protein 608	269023	chr18	55148360	55152245	0	-0.86	alt_start
Glis3	GLIS family zinc finger 3	226075	chr19	28391903	28606476	0	-0.86	alt_start
Ugt1a1	UDP glucuronosyltransferase 1 family, polypeptide A1	394436	chr1	89951985	90111618	0	-0.85	Ncomplex
Ndc80	NDC80 homolog, kinetochore complex component (<i>S. cerevisiae</i>)	67052	chr17	71870471	71872942	0	-0.85	alt_cassette
Frmd4a	FERM domain containing 4A	209630	chr2	4074156	4352244	0	-0.85	alt_end
Zc3hav1	zinc finger CCCH type, antiviral 1	78781	chr6	38260586	38266320	0	-0.83	alt_end

Icam1	intercellular adhesion molecule 1	15894	chr9	20823623	20833240	0	-0.83	alt_end
Pttg1	pituitary tumor-transforming gene 1	30939	chr11	43233910	43234608	0	-0.83	retained_int
Ppip5k1	diphosphoinositol pentakisphosphate kinase 1	327655	chr2	121147508	121157314	0	-0.82	alt_cassette
9530026P05Rik	RIKEN cDNA 9530026P05 gene	330385	chr6	93142197	93187967	0	-0.82	alt_cassette
Tmem154	transmembrane protein 154	320782	chr3	84488492	84508119	0	-0.82	alt_end
E030003E18Rik	RIKEN cDNA E030003E18 gene	320092	chr19	20568014	20641343	0	-0.82	alt_end
Axl	AXL receptor tyrosine kinase	26362	chr7	26549083	26549440	0	-0.82	retained_int
H2-K1	histocompatibility 2, K1, K region	14972	chr17	34133448	34133560	0	-0.82	retained_int
Ip6k1	inositol hexaphosphate kinase 1	27399	chr9	107878723	107879061	0	-0.81	alt_3
Creg1	cellular repressor of E1A-stimulated genes 1	433375	chr1	167694269	167699944	0	-0.81	alt_cassette
Snap23	synaptosomal-associated protein 23	20619	chr2	120412012	120420536	0	-0.81	alt_cassette
Slc44a2	solute carrier family 44, member 2	68682	chr9	21156975	21158146	0	-0.81	alt_cassette
Capg	capping protein (actin filament), gelsolin-like	12332	chr6	72494432	72505266	0	-0.81	alt_start
Rps27	ribosomal protein S27	57294	chr3	90017303	90017516	0	-0.81	complex
Irgm2	immunity-related GTPase family M member 2	54396	chr11	58013281	58032965	0	-0.81	complex
Prpf18	PRP18 pre-mRNA processing factor 18 homolog (yeast)	67229	chr2	4566719	4569287	0	-0.8	alt_cassette
Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40392558	40399236	0	-0.8	alt_cassette
Zdhhc16	zinc finger, DHHC domain containing 16	74168	chr19	42014223	42015139	0	-0.8	alt_cassette
Dok1	docking protein 1	13448	chr6	82982054	82982224	0	-0.8	retained_int
Uqcr10	ubiquinol-cytochrome c reductase, complex III subunit X	66152	chr11	4602203	4604180	0	-0.8	alt_cassette
Stra13	stimulated by retinoic acid 13	20892	chr11	120573209	120575006	0	-0.8	alt_cassette
Abi2	abl-interactor 2	329165	chr1	60505046	60510447	0	-0.79	alt_cassette
Timm9	translocase of inner mitochondrial membrane 9 homolog (yeast)	30056	chr12	72227384	72237541	0	-0.79	alt_cassette
Smg7	Smg-7 homolog, nonsense mediated mRNA decay factor (C. elegans)	226517	chr1	154688723	154691165	0	-0.78	alt_cassette
Fat1	FAT tumor suppressor homolog 1 (Drosophila)	14107	chr8	46130522	46136134	0	-0.78	alt_cassette
Syng1	synergin, gamma	217030	chr11	83852803	83854319	0	-0.78	alt_cassette
Ap1g2	adaptor protein complex AP-1, gamma 2 subunit	11766	chr14	55723295	55723667	0	-0.78	alt_cassette
Axl	AXL receptor tyrosine kinase	26362	chr7	26542291	26548961	0	-0.77	alt_end
Caacna1d	calcium channel, voltage-dependent, L type, alpha 1D subunit	12289	chr14	30895725	30903007	0	-0.77	complex
Chi3l1	chitinase 3-like 1	12654	chr1	136079366	136080094	0	-0.76	alt_3
Ctsh	cathepsin H	13036	chr9	89949472	89955317	0	-0.76	alt_cassette
Nrcam	neuron-glia-CAM-related cell adhesion molecule	319504	chr12	45667399	45669530	0	-0.76	alt_cassette
Xdh	xanthine dehydrogenase	22436	chr17	74240450	74284141	0	-0.76	alt_end
Ogdh	oxoglutarate dehydrogenase (lipoamide)	18293	chr11	6217083	6234535	0	-0.76	complex
Unc93b1	unc-93 homolog B1 (C. elegans)	54445	chr19	3936422	3949340	0	-0.75	alt_end
Auts2	autism susceptibility candidate 2	319974	chr5	132009722	133017680	0	-0.75	alt_start
Mrps2	mitochondrial ribosomal protein S2	118451	chr2	28324848	28324942	0	-0.75	retained_int
Ccdc9	coiled-coil domain containing 9	243846	chr7	16868179	16869640	0	-0.74	alt_5
Arhgap21	Rho GTPase activating protein 21	71435	chr2	20774696	20776561	0	-0.74	alt_cassette
Tpd52l1	tumor protein D52-like 1	21987	chr10	31052775	31060945	0	-0.74	alt_cassette
Tfcp2l1	transcription factor CP2-like 1	81879	chr1	120528950	120581535	0	-0.74	alt_end
BC031181	cDNA sequence BC031181	407819	chr18	75165668	75168304	0	-0.73	alt_5
Rnpep	arginyl aminopeptidase (aminopeptidase B)	215615	chr1	137168321	137173986	0	-0.73	alt_cassette

Sh2d3c	SH2 domain containing 3C	27387	chr2	32593078	32600270	0	-0.73	alt_cassette
Cep571	centrosomal protein 57-like 1	103268	chr10	41465727	41529378	0	-0.73	alt_cassette
Nfx1	nuclear transcription factor, X-box binding 1	74164	chr4	40956282	40972380	0	-0.73	alt_end
Lingo2	leucine rich repeat and Ig domain containing 2	242384	chr4	35657262	36898777	0	-0.73	alt_start
Lrrkip2	leucine rich repeat (in FLII) interacting protein 2	71268	chr9	111108351	111116644	0	-0.73	twin_cassett
Gria3	glutamate receptor, ionotropic, AMPA3 (alpha 3)	53623	chrX	39007430	39022677	0	-0.72	alt_cassette
Abhd4	abhydrolase domain containing 4	105501	chr14	54885067	54886669	0	-0.72	alt_3
Pcpn	PEST proteolytic signal containing nuclear protein	76302	chr16	56024499	56029715	0	-0.72	alt_3
Arfgap1	ADP-ribosylation factor GTPase activating protein 1	228998	chr2	180712057	180713876	0	-0.72	alt_cassette
Dock7	dedicator of cytokinesis 7	67299	chr4	98659149	98667723	0	-0.72	alt_cassette
Sp100	nuclear antigen Sp100	20684	chr1	87598018	87606023	0	-0.72	alt_end
Cd37	CD37 antigen	12493	chr7	52489348	52490053	0	-0.72	retained_int
Smagp	small cell adhesion glycoprotein	207818	chr15	100466686	100467179	0	-0.71	alt_5
Sipa1l2	signal-induced proliferation-associated 1 like 2	244668	chr8	127946602	127957077	0	-0.71	alt_cassette
Cab39l	calcium binding protein 39-like	69008	chr14	60059801	60115639	0	-0.71	alt_start
Rtn3	reticulon 3	20168	chr19	7531930	7542321	0	-0.71	complex
Traf4	TNF receptor associated factor 4	22032	chr11	77974050	77974294	0	-0.71	retained_int
Tbc1d1	TBC1 domain family, member 1	57915	chr5	64673284	64677183	0	-0.7	twin_cassett
Cd97	CD97 antigen	26364	chr8	86253424	86257312	0	-0.7	twin_cassett
Sh3kbp1	SH3-domain kinase binding protein 1	58194	chrX	156254638	156266305	0	-0.7	twin_cassett
Hs6st2	heparan sulfate 6-O-sulfotransferase 2	50786	chrX	48743538	4903066	0	-0.7	twin_cassett
5430402O13Rik	RIKEN cDNA 5430402O13 gene	73183	chr6	50517021	50539907	0	-0.69	alt_cassette
Ank3	ankyrin 3, epithelial	11735	chr10	68997032	69413699	0	-0.69	complex
Clasp1	CLIP associating protein 1	76707	chr1	120457694	120467425	0	-0.68	alt_cassette
Grin1	glutamate receptor, ionotropic, NMDA1 (zeta 1)	14810	chr2	25165995	25168947	0	-0.68	alt_cassette
Sgce	sarcoglycan, epsilon	20392	chr6	4624632	4628066	0	-0.68	alt_cassette
Spnb2	spectrin beta 2	20742	chr11	29999394	30009088	0	-0.68	alt_end
Cacnb4	calcium channel, voltage-dependent, beta 4 subunit	12298	chr2	52333331	52532101	0	-0.68	alt_start
Pedh15	protocadherin 15	11994	chr10	72562089	73285007	0	-0.68	alt_start
Repin1	replication initiator 1	58887	chr6	48544051	48544860	0	-0.67	alt_3
Snx10	sorting nexin 10	71982	chr6	51494648	51512016	0	-0.67	alt_5
Hps5	Hermansky-Pudlak syndrome 5 homolog (human)	246694	chr7	54030307	54031134	0	-0.67	alt_cassette
Igta7	integrin alpha 7	16404	chr10	128391127	128394676	0	-0.67	alt_cassette
Csnk1d	casein kinase 1, delta	104318	chr11	120825220	120829308	0	-0.67	alt_cassette
Iqsec2	IQ motif and Sec7 domain 2	245666	chrX	148656363	148657464	0	-0.67	alt_cassette
Mr1	major histocompatibility complex, class I-related	15064	chr1	156975007	156983704	0	-0.67	alt_end
Reps2	RALBP1 associated Eps domain containing protein 2	194590	chrX	159003283	159081533	0	-0.67	alt_start
Frmd4a	FERM domain containing 4A	209630	chr2	4073917	4534988	0	-0.67	Ncomplex
Amdhd2	amidohydrolase domain containing 2	245847	chr17	24300082	24300162	0	-0.67	retained_int
Adssl1	adenylosuccinate synthetase like 1	11565	chr12	113870956	113871280	0	-0.66	alt_3
Dguok	deoxyguanosine kinase	27369	chr6	83430430	83431340	0	-0.66	alt_cassette
Picalm	phosphatidylinositol binding clathrin assembly protein	233489	chr7	97326113	97337659	0	-0.66	alt_cassette
Rai14	retinoic acid induced 14	75646	chr15	10517679	10521341	0	-0.66	alt_cassette

Atnl1	attractin like 1	226255	chr19	57731728	57756860	0	-0.66	alt_cassette
Atp6v0e	ATPase, H+ transporting, lysosomal V0 subunit E	11974	chr17	26832429	26836591	0	-0.66	alt_end
Jmjd1c	JmjC domain-containing histone demethylation protein 2C	108829	chr10	66558872	66652483	0	-0.66	alt_start
Fam107a	family with sequence similarity 107, member A	268709	chr14	9133747	9150079	0	-0.66	alt_start
Rufy3	RUN and FYVE domain containing 3	52822	chr5	89012979	89013154	0	-0.66	retained_int
Robo4	roundabout homolog 4 (Drosophila)	74144	chr9	37213326	37213482	0	-0.66	retained_int
Rps12	ribosomal protein S12	20042	chr10	23505810	23506569	0	-0.66	retained_int
Cyth4	cytohesin 4	72318	chr15	78440304	78441878	0	-0.66	retained_int
Snhg1	small nucleolar RNA host gene (non-protein coding) 1	83673	chr19	8798973	8799161	0	-0.66	retained_int
Oas2	2'-5' oligoadenylate synthetase 2	246728	chr5	121181967	121183422	0	-0.65	alt_cassette
Tnk2	tyrosine kinase, non-receptor, 2	51789	chr16	32678071	32679544	0	-0.65	alt_cassette
Itgb5	integrin beta 5	16419	chr16	33885207	33899327	0	-0.65	alt_cassette
Yipf4	Yip1 domain family, member 4	67864	chr17	74889134	74891686	0	-0.65	alt_cassette
Mapkapk3	mitogen-activated protein kinase-activated protein kinase 3	102626	chr9	107157257	107162375	0	-0.65	alt_end
Tbkbp1	TBK1 binding protein 1	73174	chr11	97010929	97011362	0	-0.65	alt_start
Gja1	gap junction protein, alpha 1	14609	chr10	56097078	56107339	0	-0.65	Ncomplex
Rgs19	regulator of G-protein signaling 19	56470	chr2	181424000	181424081	0	-0.65	retained_int
Th11	TH1-like homolog (Drosophila)	57314	chr2	174248175	174248553	0	-0.64	alt_3
Stk10	serine/threonine kinase 10	20868	chr11	32488950	32489409	0	-0.64	alt_3
Lpin3	lipin 3	64899	chr2	160729467	160729680	0	-0.64	alt_5
Rpl38	ribosomal protein L38	67671	chr11	114529923	114530094	0	-0.64	alt_5
Lphn2	latrophilin 2	99633	chr3	148509996	148513799	0	-0.64	alt_cassette
Camkk2	calcium/calmodulin-dependent protein kinase kinase 2, beta	207565	chr5	123184254	123187441	0	-0.64	alt_cassette
Tfdp1	transcription factor Dp 1	21781	chr8	13339739	13365088	0	-0.64	alt_cassette
Lrch3	leucine-rich repeats and calponin homology (CH) domain containing 3	70144	chr16	32995062	32997488	0	-0.64	alt_cassette
Ssr4	signal sequence receptor, delta	20832	chrX	71034292	71035139	0	-0.64	alt_cassette
Zbp1	Z-DNA binding protein 1	58203	chr2	173032113	173041177	0	-0.64	alt_end
Rtn2	reticulon 2 (Z-band associated protein)	20167	chr7	19868015	19878424	0	-0.64	alt_start
Slc14a1	solute carrier family 14 (urea transporter), member 1	108052	chr18	78313268	78338858	0	-0.64	alt_start
Dctn1	dynactin 1	13191	chr6	8313327	83139070	0	-0.64	complex
Gria4	glutamate receptor, ionotropic, AMPA4 (alpha 4)	14802	chr9	4424454	4456004	0	-0.64	mutually_exc
Gstm6	glutathione S-transferase, mu 6	14867	chr3	107744202	107745051	0	-0.64	alt_3
Trp53	transformation related protein 53	22059	chr11	69404264	69404851	0	-0.63	alt_3
Slain1	SLAIN motif family, member 1	105439	chr14	104056289	104084885	0	-0.63	alt_cassette
Bgn	biglycan	12111	chrX	70737500	70741270	0	-0.63	alt_end
Cntnap5b	contactin associated protein-like 5B	241175	chr1	102266461	102275627	0	-0.62	alt_cassette
Pptrt	protein tyrosine phosphatase, receptor type, T	19281	chr2	161482026	161523709	0	-0.62	alt_cassette
Fgf5	fibroblast growth factor 5	14176	chr5	98683779	98704229	0	-0.62	alt_cassette
Thoc5	THO complex 5	107829	chr11	4810742	4812804	0	-0.62	alt_cassette
Six3os1	Six3 opposite strand transcript 1	100043902	chr17	86015083	86017396	0	-0.62	alt_cassette
Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40448107	40457010	0	-0.62	alt_cassette
Wdfy1	WD repeat and FYVE domain containing 1	69368	chr1	79701936	79723140	0	-0.62	alt_end
Mapkapk3	mitogen-activated protein kinase-activated protein kinase 3	102626	chr9	107162375	107191450	0	-0.62	alt_end

Accn1	amiloride-sensitive cation channel 1, neuronal (degenerin)	11418	chr11	80785116	81781898	0	-0.62	alt_start
Acox3	acyl-Coenzyme A oxidase 3, pristanoyl	80911	chr5	35925708	35926524	0	-0.62	Ncomplex
Acp5	acid phosphatase 5, tartrate resistant	11433	chr9	21934573	21940190	0	-0.62	Ncomplex
Fam168a	family with sequence similarity 168, member A	319604	chr7	107961514	107972645	0	-0.61	alt_cassette
Sorbs2	sorbin and SH3 domain containing 2	234214	chr8	46878322	46885063	0	-0.61	alt_cassette
Adarb2	adenosine deaminase, RNA-specific, B2	94191	chr13	8756821	8766626	0	-0.61	alt_end
Cd82	CD82 antigen	12521	chr2	93283601	93303103	0	-0.61	alt_start
Plek	pleckstrin	56193	chr11	16895338	16952206	0	-0.61	alt_start
Odz2	odd Oz/ten-m homolog 2 (Drosophila)	23964	chr11	36198830	36757745	0	-0.61	alt_start
Mpg	N-methylpurine-DNA glycosylase	268395	chr11	32127949	32129879	0	-0.61	complex
Lsp1	lymphocyte specific 1	16985	chr7	149646761	149670383	0	-0.61	Ncomplex
Plcd4	phospholipase C, delta 4	18802	chr1	74608511	74608628	0	-0.6	alt_3
Arhgef2	rho/rac guanine nucleotide exchange factor (GEF) 2	16800	chr3	88425243	88433708	0	-0.6	alt_5
Lrp8	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	16975	chr4	107541755	107544877	0	-0.6	alt_cassette
Fut10	fucosyltransferase 10	171167	chr8	32297934	32305425	0	-0.6	alt_cassette
Scgb3a1	secretoglobin, family 3A, member 1	68662	chr11	49477217	49477871	0	-0.6	alt_cassette
Scrib	scribbled homolog (Drosophila)	105782	chr15	75878102	75878544	0	-0.6	alt_cassette
Gusb	glucuronidase, beta	110006	chr5	130464890	130475210	0	-0.6	alt_end
Dab1	disabled homolog 1 (Drosophila)	13131	chr4	103292269	104151678	0	-0.6	alt_start
Wdr17	WD repeat domain 17	244484	chr8	55789292	55809640	0	-0.6	alt_start
Anks1b	ankyrin repeat and sterile alpha motif	77531	chr10	90039462	90357843	0	-0.6	alt_start
Tax1bp3	Tax1 (human T cell leukemia virus type I) binding protein 3	76281	chr11	72994310	72994589	0	-0.6	retained_int
Tcf7l2	transcription factor 7 like 2, T cell specific, HMG box	21416	chr19	55998434	55999019	0	-0.6	retained_int
Toe1	target of EGR1, member 1 (nuclear)	68276	chr4	116479344	116480093	0	-0.59	alt_3
Rpsa	ribosomal protein SA	16785	chr9	120038394	120039235	0	-0.59	alt_3
Dcc	deleted in colorectal carcinoma	13176	chr18	71538481	71543781	0	-0.59	alt_3
Ccnt2	cyclin T2	72949	chr1	129694463	129695966	0	-0.59	alt_5
Nlgn1	neuroligin 1	192167	chr3	25335564	25338813	0	-0.59	alt_5
Ank3	ankyrin 3, epithelial	11735	chr10	69443142	69444864	0	-0.59	alt_cassette
Syk	spleen tyrosine kinase	20963	chr13	52678974	52706164	0	-0.59	alt_cassette
Pxk	PX domain containing serine/threonine kinase	218699	chr14	8987859	8996448	0	-0.59	alt_cassette
Dock2	dedicator of cyto-kinesis 2	94176	chr11	34126863	34173668	0	-0.59	alt_end
Cyth4	cytohesin 4	72318	chr15	78442027	78448882	0	-0.59	alt_end
Rgs6	regulator of G-protein signaling 6	50779	chr12	83718024	83752795	0	-0.59	alt_start
Mid1	midline 1	17318	chrX	166123178	166428729	0	-0.59	Ncomplex
Lage3	L antigen family, member 3	66192	chrX	71597837	71598212	0	-0.59	retained_int
Fn1	fibronectin 1	14268	chr1	71659224	71661933	0	-0.58	alt_cassette
Add1	adducin 1 (alpha)	11518	chr5	34962783	34967927	0	-0.58	alt_cassette
Camk2a	calcium/calmodulin-dependent protein kinase II alpha	12322	chr18	61123617	61129647	0	-0.58	alt_cassette
Abhd15	abhydrolase domain containing 15	67477	chr11	77332339	77352107	0	-0.58	alt_end
Nt5c2	5'-nucleotidase, cytosolic II	76952	chr19	47025435	47089208	0	-0.58	alt_start
Afmid	arylformamidase	71562	chr11	117693763	117693841	0	-0.58	retained_int
Plekha5	pleckstrin homology domain containing, family A member 5	109135	chr6	140542178	140544769	0	-0.58	alt_end

Aftph	aftiphilin	216549	chr11	20592591	20598315	0	-0.57	alt_5
Ab1m2	actin-binding LIM protein 2	231148	chr5	36191554	36199776	0	-0.57	alt_cassette
Sirt2	sirtuin 2 (silent mating type information regulation 2, homolog) 2 (<i>S. cerevisiae</i>)	64383	chr7	29552651	29556830	0	-0.57	alt_cassette
Tm2d3	TM2 domain containing 3	68634	chr7	72831408	72834874	0	-0.57	alt_cassette
Slc9a5	solute carrier family 9 (sodium/hydrogen exchanger), member 5	277973	chr8	107881383	107882274	0	-0.57	alt_cassette
Lsm6	LSM6 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>)	78651	chr8	81336979	81344946	0	-0.57	alt_cassette
Ptrf	polymerase I and transcript release factor	19285	chr11	100818050	100831303	0	-0.57	alt_end
Lrrc4c	leucine rich repeat containing 4C	241568	chr2	96158325	97443645	0	-0.57	alt_start
Fbxw11	F-box and WD-40 domain protein 11	103583	chr11	32580302	32611771	0	-0.57	complex
Naip7	NLR family, apoptosis inhibitory protein 7	53880	chr13	101053096	101087643	0	-0.57	complex
H2afy	H2A histone family, member Y	26914	chr13	56185646	56197484	0	-0.57	mutually_exc
Ptpn6	protein tyrosine phosphatase, non-receptor type 6	15170	chr6	124670926	124671097	0	-0.57	retained_int
Fus	fusion, derived from t(12;16) malignant liposarcoma (human)	233908	chr7	135117948	135119401	0	-0.57	retained_int
Dync1i2	dynein cytoplasmic 1 intermediate chain 2	13427	chr2	71066727	71073992	0	-0.56	alt_cassette
Adipor2	adiponectin receptor 2	68465	chr6	119311997	119315299	0	-0.56	alt_cassette
Pfpibp2	PTPRF interacting protein, binding protein 2 (liprin beta 2)	19024	chr7	114871299	114872652	0	-0.56	alt_cassette
Lass5	LAG1 homolog, ceramide synthase 5	71949	chr15	99566867	99569095	0	-0.56	alt_cassette
Pls3	plastin 3 (T-isoform)	102866	chrX	73044829	73045841	0	-0.56	alt_cassette
Pnkd	paroxysmal nonkinesiogenic dyskinesia	56695	chr1	74333814	74400119	0	-0.56	alt_end
Epb4.1l5	band 4.1-like protein 5	226352	chr1	121444707	121495581	0	-0.56	alt_end
Rexo2	REX2, RNA exonuclease 2 homolog (<i>S. cerevisiae</i>)	104444	chr9	48276618	48282506	0	-0.56	alt_end
Rin3	Ras and Rab interactor 3	217835	chr12	103564102	103628881	0	-0.56	alt_end
Ctnnbp2nl	CTTNBP2 N-terminal like	80281	chr3	104841905	104856064	0	-0.56	alt_start
Vamp1	vesicle-associated membrane protein 1	22317	chr6	125165598	125190352	0	-0.56	alt_start
Mgat4c	mannosyl (alpha-1,3-)glycoprotein beta-1,4-N-acetylglucosaminyltransferase, isozyme C (putative)	67569	chr10	101621712	101840785	0	-0.56	alt_start
Pnkd	paroxysmal nonkinesiogenic dyskinesia	56695	chr1	74332584	74393958	0	-0.56	complex
Sla	src-like adaptor	20491	chr15	66633090	66663391	0	-0.56	Ncomplex
AK006343	RIKEN full-length enriched library, clone:1700025i17	100040421	chr13	53489099	53489659	0	-0.55	alt_3
Prrt1	proline-rich transmembrane protein 1	260297	chr17	35258495	35259997	0	-0.55	alt_5
Svil	supervillin	225115	chr18	5059367	5062160	0	-0.55	alt_cassette
Ets1	E26 avian leukemia oncogene 1, 5' domain	23871	chr9	32536359	32564874	0	-0.55	alt_end
Daam2	dishevelled associated activator of morphogenesis 2	76441	chr17	49615772	49619754	0	-0.55	alt_end
Spock1	sparc/osteonectin, cwcv and kazal-like domains proteoglycan 1	20745	chr13	57522555	57537470	0	-0.55	complex
Hspb1	heat shock protein 1	15507	chr5	136364982	136365110	0	-0.55	retained_int
Sept4	septin 4	18952	chr11	87403320	87403510	0	-0.54	alt_3
Baz2b	bromodomain adjacent to zinc finger domain, 2B	407823	chr2	59796549	5980077	0	-0.54	alt_cassette
Rpn2	ribophorin II	20014	chr2	157147608	157151447	0	-0.54	alt_cassette
Lsm14a	LSM14 homolog A (SCD6, <i>S. cerevisiae</i>)	67070	chr7	35142515	35150633	0	-0.54	alt_cassette
Camk2g	calcium/calmodulin-dependent protein kinase II gamma	12325	chr14	21565082	21574880	0	-0.54	alt_cassette
Pelo	pelota homolog (<i>Drosophila</i>)	105083	chr13	115825480	115891678	0	-0.54	alt_end
Sntg1	syntrophin, gamma 1	71096	chr1	8455614	9289317	0	-0.54	alt_start
Afmid	arylfomamidase	71562	chr11	117670994	117701219	0	-0.54	Ncomplex

Lamp2	lysosomal-associated membrane protein 2	16784	chrX	35754537	35809632	0	-0.54	Ncomplex
Phospho1	phosphatase, orphan 1	237928	chr11	95690069	95691885	0	-0.53	alt_3
Mrps15	mitochondrial ribosomal protein S15	66407	chr4	125724443	125724678	0	-0.53	alt_5
Clstn1	calsyntenin 1	65945	chr4	148988281	149001320	0	-0.53	alt_cassette
Clec7a	C-type lectin domain family 7, member a	56644	chr6	129417666	129420937	0	-0.53	alt_cassette
Ptpro	protein tyrosine phosphatase, receptor type, O	19277	chr6	137366798	137375285	0	-0.53	alt_cassette
Syng4	synaptogyrin 4	58867	chr7	53142495	53143982	0	-0.53	alt_cassette
Plod2	procollagen lysine, 2-oxoglutarate 5-dioxygenase 2	26432	chr9	92495720	92497785	0	-0.53	alt_cassette
Arpp21	cyclic AMP-regulated phosphoprotein, 21	74100	chr9	112027504	112029782	0	-0.53	alt_cassette
Bin3	bridging integrator 3	57784	chr14	70500003	70518411	0	-0.53	alt_cassette
2610318N02Rik	RIKEN cDNA 2610318N02 gene	70458	chr16	17121644	17125082	0	-0.53	alt_cassette
Cstf3	cleavage stimulation factor, 3' pre-RNA, subunit 3	228410	chr2	104449343	104505582	0	-0.53	alt_end
Slc6a6	solute carrier family 6 (neurotransmitter transporter, taurine), member 6	21366	chr6	91676220	91708641	0	-0.53	alt_end
Mmd	monocyte to macrophage differentiation-associated	67468	chr11	90111029	90139758	0	-0.53	alt_end
Opcml	opioid binding protein/cell adhesion molecule-like	330908	chr9	27598853	28211912	0	-0.53	alt_start
Immt	inner membrane protein, mitochondrial	76614	chr6	71802841	71806926	0	-0.53	complex
Taf1d	TATA box binding protein (Tbp)-associated factor, RNA polymerase I, D	75316	chr9	15116139	15117217	0	-0.53	complex
Rps13	ribosomal protein S13	68052	chr7	123476592	123477230	0	-0.53	retained_int
Pleckhg4	pleckstrin homology domain containing, family G (with RhoGef domain) member 4	102075	chr8	107901783	107902199	0	-0.53	retained_int
Xpa	xeroderma pigmentosum, complementation group A	22590	chr4	46188267	46196010	0	-0.53	alt_cassette
Yars2	tyrosyl-tRNA synthetase 2 (mitochondrial)	70120	chr16	16304796	16306590	0	-0.52	alt_3
Naip2	NLR family, apoptosis inhibitory protein 2	17948	chr13	100967079	100971981	0	-0.52	alt_5
Brd4	bromodomain containing 4	57261	chr17	32366680	32389985	0	-0.52	alt_5
Trpc1	transient receptor potential cation channel, subfamily C, member 1	22063	chr9	95632628	95650086	0	-0.52	alt_cassette
AB124611	cDNA sequence AB124611	382062	chr9	21330751	2133206	0	-0.52	alt_cassette
Rasgef1c	RasGEF domain family, member 1C	74563	chr11	49770698	49772122	0	-0.52	alt_cassette
Nvl	nuclear VCP-like	67459	chr1	183023553	183027266	0	-0.52	alt_end
Myl1	myosin, light polypeptide 1	17901	chr1	66970871	66972781	0	-0.52	alt_end
Oncut1	one cut domain, family member 1	15379	chr9	74697018	74737454	0	-0.52	alt_end
Ptbp1	polypyrimidine tract binding protein 1	19205	chr10	79323694	79325214	0	-0.52	complex
2310044G17Rik	RIKEN cDNA 2310044G17 gene	217732	chr12	88287992	88293693	0	-0.52	complex
Prom1	prominin 1	19126	chr5	44486007	44493271	0	-0.52	Ncomplex
Cmrtm7	CKLF-like MARVEL transmembrane domain containing 7	102545	chr9	114671123	114672336	0	-0.52	retained_int
Amhdhd2	amidohydrolase domain containing 2	245847	chr17	24293052	24293537	0	-0.51	alt_3
Baz2b	bromodomain adjacent to zinc finger domain, 2B	407823	chr2	59745088	59745621	0	-0.51	alt_5
Ephx2	epoxide hydrolase 2, cytoplasmic	13850	chr14	66735632	66743171	0	-0.51	alt_5
Rps24	ribosomal protein S24	20088	chr14	25309960	25310992	0	-0.51	alt_5
Kcnt1	potassium channel, subfamily T, member 1	227632	chr2	25733555	25743588	0	-0.51	alt_cassette
Cadps2	Ca2+-dependent activator protein for secretion 2	320405	chr6	23273435	23279019	0	-0.51	alt_cassette
Abhd14a	abhydrolase domain containing 14A	68644	chr9	106346637	106349861	0	-0.51	alt_cassette
Camk2b	calcium/calmodulin-dependent protein kinase II, beta	12323	chr11	5879724	5882503	0	-0.51	alt_cassette
Grip1	glutamate receptor interacting protein 1	74053	chr10	119512535	119524007	0	-0.51	alt_end
Pola2	polymerase (DNA directed), alpha 2	18969	chr19	5946469	5950445	0	-0.51	alt_end

Pde7b	phosphodiesterase 7B	29863	chr10	20199544	20444502	0	-0.51	alt_start
Fam109b	family with sequence similarity 109, member B	338368	chr15	82171352	82173488	0	-0.51	alt_start
Fam116a	family with sequence similarity 116, member A	211922	chr14	27393584	27419101	0	-0.51	complex
C4a	complement component 4A (Rodgers blood group)	625018	chr17	34865331	34960399	0	-0.51	complex
Svil	supervillin	225115	chr18	5049492	5058122	0	-0.51	complex
Tpm3	tropomyosin 3, gamma	59069	chr3	89891666	89893718	0	-0.51	mutually_exc
Il18bp	interleukin 18 binding protein	16068	chr7	109164349	109164556	0	-0.51	retained_int
Myl6	myosin, light polypeptide 6, alkali, smooth muscle and non-muscle	17904	chr10	127928820	127929114	0	-0.51	retained_int
Abcc10	ATP-binding cassette, sub-family C (CFTR/MRP), member 10	224814	chr17	46460528	46460641	0	-0.51	retained_int
Usp28	ubiquitin specific peptidase 28	235323	chr9	48840458	48843697	0	-0.51	twin_cassett
Dlgap2	discs, large (Drosophila) homolog-associated protein 2	244310	chr8	14822695	14829868	0	-0.5	alt_cassette
Mbtld1	mbt domain containing 1	103537	chr11	93747730	93766472	0	-0.5	alt_cassette
Dis3	DIS3 mitotic control homolog (S. cerevisiae)	72662	chr14	99498059	99498664	0	-0.5	alt_cassette
Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40399322	40401939	0	-0.5	alt_cassette
Slc35d1	solute carrier family 35 (UDP-glucuronic acid/UDP-N-acetylgalactosamine dual transporter), member D1	242585	chr4	102877710	102880714	0	-0.5	alt_end
Stard3nl	STARD3 N-terminal like	76205	chr13	19449544	19459612	0	-0.5	alt_end
Meis2	Meis homeobox 2	17536	chr2	115889156	115890849	0	-0.5	alt_start
Hspb6	heat shock protein, alpha-crystallin-related, B6	243912	chr7	31337571	31339280	0	-0.5	alt_start
Fzd7	frizzled homolog 7 (Drosophila)	14369	chr1	59539022	59543368	0	-0.5	complex
Zfp944	zinc finger protein 944	319615	chr17	22480660	22495789	0	-0.5	complex
More inclusion in FUS/TLS KD and no change in TDP-43 KD								
5330434G04Rik	RIKEN full-length enriched library, clone:6430500B09	100043213	chrX	102583275	102586814	1.05	0	alt_cassette
Enpp5	ectonucleotide pyrophosphatase/phosphodiesterase 5	83965	chr17	44219869	44222153	1.03	0	retained_int
Tmcc2	transmembrane and coiled-coil domains 2	68875	chr1	134257792	134277758	1	0	alt_start
Pptrs	protein tyrosine phosphatase, receptor type, S	19280	chr17	56564400	56573875	0.97	0	alt_cassette
Ppfibp1	PTPRF interacting protein, binding protein 1 (liprin beta 1)	67533	chr6	146961040	146964744	0.94	0	alt_cassette
Snrrn	small nuclear ribonucleoprotein N	20646	chr7	67133613	67140312	0.94	0	alt_cassette
Rnf14	ring finger protein 14	56736	chr18	38456452	38459407	0.91	0	alt_cassette
Luc7l2	LUC7-like 2 (S. cerevisiae)	192196	chr6	38501518	38520509	0.88	0	complex
Thra	thyroid hormone receptor alpha	21833	chr11	98625699	98629491	0.85	0	complex
Pcdhac2	protocadherin alpha subfamily C, 2	353237	chr18	37344701	37345129	0.84	0	retained_int
AK158929	RIKEN full-length enriched library, clone:K530010N24		chr1	148278557	148342029	0.84	0	twin_cassett
Mudeng	MU-2/AP1M2 domain containing, death-inducing	74385	chr14	49693417	49698369	0.83	0	complex
Fam65b	family with sequence similarity 65, member B	193385	chr13	24787571	24792930	0.83	0	alt_cassette
Sept9	septin 9	53860	chr11	117060974	117151711	0.82	0	alt_start
Slc8a1	solute carrier family 8 (sodium/calcium exchanger), member 1	20541	chr17	81785367	81788170	0.81	0	retained_int
Rasgrp2	RAS, guanyl releasing protein 2	19395	chr19	6400604	6401741	0.81	0	complex
Ahi1	Abelson helper integration site 1	52906	chr10	20778056	20792348	0.81	0	alt_cassette
Hnrpd	heterogeneous nuclear ribonucleoprotein D	11991	chr5	100396406	100407410	0.8	0	alt_cassette
5730419I09Rik	RIKEN cDNA 5730419I09 gene	74741	chr6	143021214	143026782	0.79	0	alt_cassette
Bcan	brevican	12032	chr3	87791452	87796976	0.79	0	alt_end
Mphosph9	M-phase phosphoprotein 9	269702	chr5	124765905	124770853	0.79	0	alt_cassette

Enah	enabled homolog (Drosophila)	13800	chr1	183838487	183843458	0.78	0	alt_cassette
2210415F13Rik	RIKEN cDNA 2210415F13 gene	70163	chr11	58192600	58195786	0.77	0	alt_cassette
Rnf112	ring finger protein 112	22671	chr11	61264404	61264479	0.77	0	retained_int
Mobp	myelin-associated oligodendrocytic basic protein	17433	chr9	120082493	120090602	0.77	0	alt_end
Nin	ninein	18080	chr12	71141867	71146133	0.76	0	alt_cassette
Nrxn1	neurexin I	18189	chr17	91100245	91103405	0.74	0	alt_cassette
Tmem116	transmembrane protein 116	77462	chr5	121917974	121937779	0.74	0	alt_cassette
Pdlim7	PDZ and LIM domain 7	67399	chr13	55599935	55608690	0.73	0	alt_end
Trio	triple functional domain (PTPRF interacting)	223435	chr15	27677897	27678214	0.72	0	retained_int
Zfp385b	zinc finger protein 385B	241494	chr2	77341739	77654873	0.7	0	Ncomplex
Phkb	phosphorylase kinase beta	102093	chr8	88420436	88425775	0.69	0	alt_cassette
Anp32e	acidic (leucine-rich) nuclear phosphoprotein 32 family, member E	66471	chr3	95741926	95748229	0.69	0	alt_3
Adsl	adenylosuccinate lyase	11564	chr15	80786074	80790845	0.68	0	alt_cassette
Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	74182	chr2	132359809	132390362	0.68	0	alt_end
Pou6f1	POU domain, class 6, transcription factor 1	19009	chr15	100414590	100417074	0.68	0	alt_cassette
Arhgap22	Rho GTPase activating protein 22	239027	chr14	34172511	34177578	0.68	0	complex
Fchsd2	FCH and double SH3 domains 2	207278	chr7	108392730	108398958	0.68	0	alt_cassette
Acd	adrenocortical dysplasia	497652	chr8	108223391	108223760	0.67	0	alt_cassette
Slitrk4	SLIT and NTRK-like family, member 4	245446	chrX	61526284	61529974	0.67	0	alt_cassette
Zfp523	zinc finger protein 523	224656	chr17	28326867	28334855	0.67	0	complex
Nsg2	neuron specific gene family member 2	18197	chr11	31917714	31958880	0.66	0	alt_end
Pml	promyelocytic leukemia	18854	chr9	58077893	58078297	0.66	0	alt_3
Rnf38	ring finger protein 38	73469	chr4	44165425	44181114	0.66	0	alt_cassette
Traf3	TNF receptor-associated factor 3	22031	chr12	112404813	112475772	0.66	0	alt_cassette
Gria2	glutamate receptor, ionotropic, AMPA2 (alpha 2)	14800	chr3	80493273	80495241	0.66	0	alt_cassette
Birc6	baculoviral IAP repeat-containing 6	12211	chr17	75014670	75017775	0.65	0	alt_5
Pon2	paraoxonase 2	330260	chr6	5227927	5239012	0.65	0	alt_cassette
Abcc5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5	27416	chr16	20332331	20404638	0.65	0	alt_end
Stau2	staufen (RNA binding protein) homolog 2 (Drosophila)	29819	chr1	16453255	16499443	0.64	0	alt_cassette
Appl2	adaptor protein, phosphotyrosine interaction, PH domain and leucine zipper containing 2	216190	chr10	83074217	83075477	0.64	0	complex
Fgfr3	fibroblast growth factor receptor 3	14184	chr5	34070565	34072329	0.64	0	alt_cassette
Brsk2	BR serine/threonine kinase 2	75770	chr7	149171917	149173676	0.64	0	alt_cassette
Lrp12	low density lipoprotein-related protein 12	239393	chr15	39716687	39775149	0.64	0	alt_cassette
Zfp558	zinc finger protein 558	72230	chr9	18260018	18261244	0.64	0	alt_end
Rab12	RAB, member of RAS oncogene family-like 2	68708	chr15	89414821	89420703	0.64	0	complex
Gm10125	RIKEN full-length enriched library, clone:6330563N19	791318	chr18	5525387	5540603	0.64	0	alt_3
Armc8	armadillo repeat containing 8	74125	chr9	99438178	99469020	0.64	0	alt_cassette
Sec63	SEC63-like (S. cerevisiae)	140740	chr10	42516070	42517488	0.63	0	retained_int
Slc25a14	solute carrier family 25 (mitochondrial carrier, brain), member 14	20523	chrX	45976985	45982449	0.63	0	alt_cassette
Six3os1	Six3 opposite strand transcript 1	100043902	chr17	86014032	86014933	0.63	0	complex
Eif2b4	eukaryotic translation initiation factor 2B, subunit 4 delta	13667	chr5	31492099	31492370	0.62	0	alt_5
Arpp21	cyclic AMP-regulated phosphoprotein, 21	74100	chr9	112088273	112090093	0.62	0	alt_cassette

2310008H09Rik	RIKEN cDNA 2310008H09 gene	66356	chr7	125992068	125996423	0.62	0	alt_cassette
Arhgef2	rho/rac guanine nucleotide exchange factor (GEF) 2	16800	chr3	88437289	88437421	0.62	0	retained_int
Ociad2	OCIA domain containing 2	433904	chr5	73715066	73718922	0.62	0	alt_cassette
Ankrd24	ankyrin repeat domain 24	70615	chr10	81102880	81103512	0.62	0	retained_int
Rbmx	RNA binding motif protein, X chromosome	19655	chrX	54640570	54641237	0.62	0	retained_int
Slc25a27	solute carrier family 25, member 27	74011	chr17	43780475	43783969	0.61	0	alt_3
A830018L16Rik	RIKEN cDNA A830018L16 gene	320492	chr1	11586398	11923672	0.61	0	alt_end
Ankrd32	ankyrin repeat domain-containing protein 32	105377	chr13	77242832	77245236	0.61	0	alt_end
Vapa	vesicle-associated membrane protein, associated protein A	30960	chr17	65932073	65941651	0.61	0	alt_cassette
Camk2b	calcium/calmodulin-dependent protein kinase II, beta	12323	chr11	5882741	5888124	0.61	0	complex
Fyn	Fyn proto-oncogene	14360	chr10	39114850	39231544	0.61	0	alt_cassette
Cars	cysteinyl-tRNA synthetase	27267	chr7	150772396	150774417	0.61	0	alt_cassette
Prokr1	prokineticin receptor 1	58182	chr6	87539000	87540594	0.6	0	alt_5
D19Wsu162e	DNA segment, Chr 19, Wayne State University 162, expressed	226178	chr19	46673783	46718842	0.6	0	alt_cassette
Adamtsl1	ADAMTS-like 1	77739	chr4	85845286	85880168	0.6	0	alt_end
Bcl11a	B cell CLL/lymphoma 11A (zinc finger protein)	14025	chr11	24063288	24072698	0.6	0	complex
Pax6	paired box gene 6	18508	chr2	105520464	105531721	0.6	0	complex
Lgr6	leucine-rich repeat-containing G protein-coupled receptor 6	329252	chr1	136902316	136923649	0.6	0	alt_cassette
Pdzd2	PDZ domain containing 2	68070	chr15	12388054	12478990	0.6	0	alt_cassette
4930422G04Rik	prematurely terminated mRNA decay factor-like	71643	chr3	127276243	127286501	0.6	0	alt_cassette
Adora1	adenosine A1 receptor	11539	chr1	136130989	136131804	0.59	0	retained_int
Dusp19	dual specificity phosphatase 19	68082	chr2	80461397	80464364	0.59	0	alt_5
Spink10	serine peptidase inhibitor, Kazal type 10	328971	chr18	62810503	62817510	0.59	0	alt_start
Lsm11	U7 snRNP-specific Sm-like protein LSM11	72290	chr11	45745367	45746883	0.59	0	retained_int
1810022K09Rik	RIKEN cDNA 1810022K09 gene	69126	chr3	14606408	14607176	0.58	0	retained_int
Rab7	RAB7, member RAS oncogene family	19349	chr6	87963692	87995066	0.58	0	complex
Qdpr	quinoid dihydropteridine reductase	110391	chr5	45834796	45838835	0.58	0	alt_cassette
Meis2	Meis homeobox 2	17536	chr2	115690249	115693004	0.58	0	alt_cassette
Al413582	expressed sequence Al413582	106672	chr17	27701179	27701527	0.58	0	alt_cassette
Stac2	SH3 and cysteine rich domain 2	217154	chr11	97902893	97904794	0.58	0	twin_cassett
Rap1gds1	RAP1, GTP-GDP dissociation stimulator 1	229877	chr3	138628960	138678509	0.58	0	alt_cassette
Mtap2	microtubule-associated protein 2	17756	chr1	66433642	66445962	0.58	0	alt_5
Bin1	bridging integrator 1	30948	chr18	32573944	32579496	0.58	0	alt_cassette
Asnsd1	asparagine synthetase domain containing 1	70396	chr1	53403605	53405289	0.58	0	alt_5
Ssbp2	single-stranded DNA binding protein 2	66970	chr13	91704299	91810069	0.58	0	alt_end
Mpdu1	mannose-P-dolichol utilization defect 1	24070	chr11	69471325	69472088	0.58	0	alt_cassette
Rbm5	RNA binding motif protein 5	83486	chr9	107659323	107662652	0.58	0	alt_cassette
Pdia5	protein disulfide isomerase associated 5	72599	chr16	35411063	35429839	0.58	0	alt_cassette
Zdhhc20	zinc finger, DHHC domain containing 20	75965	chr14	58458042	58459666	0.57	0	alt_cassette
Zfml	zinc finger, matrin-like	18139	chr6	83904755	83907502	0.57	0	alt_cassette
Cdc14b	CDC14 cell division cycle 14 homolog B (<i>S. cerevisiae</i>)	218294	chr13	64348626	64376238	0.57	0	alt_start
Parp6	poly (ADP-ribose) polymerase family, member 6	67287	chr9	59488903	59496636	0.57	0	alt_cassette
Nrxn1	neurexin I	18189	chr17	91103707	91487294	0.57	0	twin_cassett

Nek8	NIMA (never in mitosis gene a)-related expressed kinase 8	140859	chr11	77984780	77985633	0.57	0	retained_int
Sybu	syntabulin (syntaxin-interacting)	319613	chr15	44550531	44619134	0.57	0	alt_cassette
Unc13b	unc-13 homolog B (<i>C. elegans</i>)	22249	chr4	43178850	43258468	0.57	0	alt_end
Capn10	calpain 10	23830	chr1	94837077	94844525	0.56	0	alt_end
Huve1	HECT, UBA and WWE domain containing 1	59026	chrX	148358104	148359204	0.56	0	complex
Tmem44	transmembrane protein 44	224090	chr16	30514908	30529497	0.56	0	alt_cassette
Hnmpk	heterogeneous nuclear ribonucleoprotein K	15387	chr13	58497048	58498187	0.56	0	alt_cassette
Plekhm2	pleckstrin homology domain-containing family M	69582	chr4	141190393	141195590	0.56	0	alt_cassette
Obsl1	obscurin-like 1	98733	chr1	75487643	75487762	0.56	0	retained_int
Agtbp1	ATP/GTP binding protein 1	67269	chr13	59615656	59626506	0.55	0	alt_cassette
Celsr2	cadherin, EGF LAG seven-pass G-type receptor 2 (flamingo homolog, <i>Drosophila</i>)	53883	chr3	108195576	108195928	0.55	0	retained_int
Nipbl	Nipped-B homolog (<i>Drosophila</i>)	71175	chr15	8241590	8242136	0.55	0	complex
Mapt	microtubule-associated protein tau	17762	chr11	104143794	104156172	0.55	0	twin_cassett
Csnk1g3	casein kinase 1, gamma 3	70425	chr18	54093179	54107722	0.55	0	alt_cassette
Dnajc5	Dnaj (Hsp40) homolog, subfamily C, member 5	13002	chr2	181255402	181281075	0.54	0	alt_cassette
Samp	SAP domain containing ribonucleoprotein	66118	chr10	128259027	128270367	0.54	0	alt_cassette
Pde10a	phosphodiesterase 10A	23984	chr17	8719665	9091725	0.54	0	complex
Ube2d3	ubiquitin-conjugating enzyme E2D 3 (UBC4/5 homolog, yeast)	66105	chr3	135118321	135121782	0.54	0	alt_cassette
9330182L06Rik	RIKEN cDNA 9330182L06 gene	231014	chr5	9463034	9480717	0.54	0	alt_end
Gfra2	glial cell line derived neurotrophic factor family receptor alpha 2	14586	chr14	71290701	71325524	0.54	0	alt_cassette
Gpr89	G protein-coupled receptor 89	67549	chr3	96684089	96684543	0.54	0	alt_5
Samd4	sterile alpha motif domain containing 4	74480	chr14	47636470	47683894	0.54	0	alt_cassette
Cope	coatomer protein complex, subunit epsilon	59042	chr8	72828575	72830418	0.54	0	alt_cassette
Rnf111	ring finger 111	93836	chr9	70324475	70351265	0.54	0	alt_cassette
Fut10	fucosyltransferase 10	171167	chr8	32346882	32371827	0.54	0	alt_end
Igbp1	immunoglobulin (CD79A) binding protein 1	18518	chrX	97690537	97711340	0.54	0	alt_end
Postn	periostin, osteoblast specific factor	50706	chr3	54188475	54193281	0.54	0	complex
Nrxn1	neurexin I	18189	chr17	91022759	91100083	0.54	0	alt_end
Pot1a	protection of telomeres 1A	101185	chr6	25744654	25750304	0.53	0	alt_cassette
Plekhb1	pleckstrin homology domain containing, family B (ejectins) member 1	27276	chr7	107794183	107802167	0.53	0	alt_cassette
Bmp1	bone morphogenetic protein 1	12153	chr14	70886079	70889826	0.53	0	complex
Klh15	kelch-like 15 (<i>Drosophila</i>)	236904	chrX	91480464	91480559	0.53	0	retained_int
Dach2	dachshund 2 (<i>Drosophila</i>)	93837	chrX	110412544	110669856	0.53	0	complex
Pex51	peroxisomal biogenesis factor 5-like	58869	chr3	32913998	32979386	0.53	0	alt_cassette
Cab39	calcium binding protein 39	12283	chr1	87690396	87714931	0.53	0	alt_cassette
Aldoc	aldolase C, fructose-bisphosphate	11676	chr11	78139298	78139784	0.53	0	alt_cassette
Mag1	membrane associated guanylate kinase, WW and PDZ domain containing 1	14924	chr6	93644169	93647187	0.53	0	complex
Ankrd54	ankyrin repeat domain 54	223690	chr15	78886495	78891614	0.52	0	alt_cassette
Rabl2	RAB, member of RAS oncogene family-like 2	68708	chr15	89414438	89414709	0.52	0	retained_int
Trp53inp1	transformation related protein 53 inducible nuclear protein 1	60599	chr4	11092594	11096856	0.52	0	alt_cassette
Mical2	microtubule associated monooxygenase, calponin and LIM domain containing 2	320878	chr7	119475553	119490235	0.52	0	alt_cassette
Grpel2	GrpE-like 2, mitochondrial	17714	chr18	61869999	61872895	0.52	0	alt_end
Dnajc25	Dnaj (Hsp40) homolog, subfamily C, member 25	72429	chr4	59016370	59030541	0.52	0	alt_start

Tbce	tubulin-specific chaperone E	70430	chr13	14097550	14131867	0.52	0	alt_start
Neto2	neuropilin (NRP) and tolloid (TLL)-like 2	74513	chr8	88198029	88224823	0.52	0	alt_start
2810474O19Rik	RIKEN cDNA 2810474O19 gene	67246	chr6	149258899	149273926	0.52	0	alt_cassette
Braf	Braf transforming gene	109880	chr6	39598485	39601603	0.52	0	alt_cassette
Stxbp2	syntaxin binding protein 2	20911	chr8	3634123	3635446	0.52	0	alt_cassette
Pank1	pantothenate kinase 1	75735	chr19	34895713	34901610	0.51	0	alt_cassette
Mcm10	minichromosome maintenance deficient 10 (S. cerevisiae)	70024	chr2	4929838	4933771	0.51	0	alt_cassette
Zfand6	zinc finger, AN1-type domain 6	65098	chr7	91782919	91827819	0.51	0	alt_cassette
BC026590	cDNA sequence BC026590	230234	chr4	56815598	56816467	0.51	0	alt_3
1700012B15Rik	RIKEN cDNA 1700012B15 gene	74173	chr12	3238112	3241521	0.51	0	alt_cassette
Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40411525	40424388	0.51	0	alt_cassette
Rragd	Ras-related GTP binding D	52187	chr4	33069972	33082776	0.51	0	alt_start
Ablim1	actin-binding LIM protein 1	226251	chr19	57158093	57247949	0.51	0	alt_start
Agpat9	1-acylglycerol-3-phosphate O-acyltransferase 9	231510	chr5	101275576	101275673	0.51	0	retained_int
Porcn	porcupine homolog (Drosophila)	53627	chrX	7780941	7782711	0.51	0	alt_cassette
Ppox	protoporphyrinogen oxidase	19044	chr1	173210112	173210539	0.51	0	alt_cassette
Ing1	inhibitor of growth family, member 1	26356	chr8	11556095	11561417	0.5	0	alt_5
Sh2b1	SH2B adaptor protein 1	20399	chr7	133616608	133618509	0.5	0	complex
Decr2	2-4-dienoyl-Coenzyme A reductase 2, peroxisomal	26378	chr17	26225922	26227062	0.5	0	alt_5
More inclusion in TDP-43 KD and no change in FUS/TLS KD								
Sor1	sortilin 1	20661	chr3	108151759	108159148	0	3.18	alt_cassette
Irf7	interferon regulatory factor 7	54123	chr7	148449947	148450391	0	2.37	alt_cassette
Oas2	2'-5' oligoadenylate synthetase 2	246728	chr5	121180342	121183422	0	2.05	alt_end
Sp100	nuclear antigen Sp100	20684	chr1	87575684	87588549	0	1.95	alt_cassette
Apobec1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	11810	chr6	122541222	122550076	0	1.92	alt_cassette
Dnajc5	DnaJ (Hsp40) homolog, subfamily C, member 5	13002	chr2	181283546	181283977	0	1.89	alt_cassette
Pdp1	pyruvate dehydrogenase phosphatase catalytic subunit 1	381511	chr4	11889380	11893448	0	1.85	alt_cassette
Ms4a7	membrane-spanning 4-domains, subfamily A, member 7	109225	chr19	11399118	11402414	0	1.84	alt_cassette
Slamf7	SLAM family member 7	75345	chr1	173566505	173568793	0	1.83	alt_cassette
Stat1	signal transducer and activator of transcription 1	20846	chr1	52176879	52179434	0	1.79	alt_5
Gp49a	glycoprotein 49 A	14727	chr10	51200747	51201472	0	1.75	complex
Cadps	Ca2+-dependent secretion activator	27062	chr14	13324377	13338297	0	1.61	alt_cassette
Emr1	EGF-like module containing, mucin-like, hormone receptor-like sequence 1	13733	chr17	57541474	57541971	0	1.58	alt_3
LOC547349	MHC class I family member	547349	chr17	35403004	35462364	0	1.45	alt_end
Nras	neuroblastoma ras oncogene	18176	chr3	102869528	102871225	0	1.38	retained_int
Cops4	COP9 (constitutive photomorphogenic) homolog, subunit 4 (Arabidopsis thaliana)	26891	chr5	100947569	100957558	0	1.34	alt_cassette
Atp2b2	ATPase, Ca++ transporting, plasma membrane 2	11941	chr6	113746391	113755454	0	1.34	alt_cassette
Chl1	cell adhesion molecule with homology to L1CAM	12661	chr6	103615975	103618721	0	1.33	alt_cassette
Cd44	CD44 antigen	12505	chr2	102651299	102693171	0	1.33	alt_end
Gp49a	glycoprotein 49 A	14727	chr10	51200747	51201372	0	1.32	alt_cassette
Serpina3f	serine (or cysteine) peptidase inhibitor, clade A, member 3F	238393	chr12	105455078	105476147	0	1.32	alt_start
Fcgr2b	Fc receptor, IgG, low affinity IIb	14130	chr1	172890688	172895832	0	1.31	alt_end
Emp3	epithelial membrane protein 3	13732	chr7	53176632	53176632	0	1.27	alt_cassette

Cyba	cytochrome b-245, alpha polypeptide	13057	chr8	124950167	124951128	0	1.23	alt_cassette
Lyz1	lysozyme 1	17110	chr10	116715223	116726195	0	1.2	alt_end
Srgn	serglycin	19073	chr10	61957834	61970410	0	1.19	alt_cassette
Tcf4	transcription factor 4	21413	chr18	69504679	69508725	0	1.19	alt_cassette
Irgm2	immunity-related GTPase family M member 2	54396	chr11	58019621	58019820	0	1.19	complex
Pcdh17	protocadherin 17 precursor	219228	chr14	84872049	84875815	0	1.18	complex
Dos	downstream of Stk11	100503659	chr10	79599435	79599619	0	1.17	alt_cassette
AK172683	IKEN full-length enriched library, clone:A630026L20	668139	chr7	113655189	113672722	0	1.15	alt_start
Mgst1	microsomal glutathione S-transferase 1	56615	chr6	138096316	138104673	0	1.14	alt_cassette
Naglu	alpha-N-acetylglucosaminidase (Sanfilippo disease IIIB)	27419	chr11	100933356	100935246	0	1.14	complex
Spp1	secreted phosphoprotein 1	20750	chr5	104866754	104868284	0	1.12	alt_cassette
Tram1	translocating chain-associating membrane protein 1	72265	chr1	13569627	13571124	0	1.12	alt_cassette
Eif4h	eukaryotic translation initiation factor 4H	22384	chr5	135097956	135101235	0	1.11	alt_cassette
Upp2	uridine phosphorylase 2	76654	chr2	58607813	58616106	0	1.11	alt_cassette
Apoc1	apolipoprotein C-I	11812	chr7	20274965	20277780	0	1.11	alt_cassette
Apobec3	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 3	80287	chr15	79722887	79725840	0	1.1	alt_start
4632419l22Rik	RIKEN cDNA 4632419l22 gene	74038	chr11	86020793	86097735	0	1.09	alt_end
Pde4b	phosphodiesterase 4B, cAMP specific	18578	chr4	101760345	102159815	0	1.09	alt_start
Arhgap44	Rho GTPase activating protein 44	216831	chr11	64816952	64821564	0	1.08	alt_cassette
Camta1	calmodulin binding transcription activator 1	100072	chr4	150960591	151204526	0	1.07	twin_cassett
Laptm4a	lysosomal-associated protein transmembrane 4A	17775	chr12	8938554	8941672	0	1.05	alt_cassette
Knc3	potassium voltage gated channel, Shaw-related subfamily, member 3	16504	chr7	51853925	51857259	0	1.04	alt_cassette
Spc25	SPC25, NDC80 kinetochore complex component, homolog (S. cerevisiae)	66442	chr2	69042978	69044120	0	1.03	alt_cassette
Ubtf	upstream binding transcription factor, RNA polymerase I	21429	chr11	102171890	102172693	0	1.03	alt_cassette
Ptpd	protein tyrosine phosphatase, receptor type, D	19266	chr4	75971229	77857693	0	1.03	alt_start
Arpp21	cyclic AMP-regulated phosphoprotein, 21	74100	chr9	112051856	112060214	0	1.03	complex
Mapk14	mitogen-activated protein kinase 14	26416	chr17	28865920	28878732	0	1.03	mutually_exc
Sema3f	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3F	20350	chr9	107592110	107594498	0	1.01	alt_cassette
Dlg2	discs, large homolog 2 (Drosophila)	23859	chr7	98239295	98881600	0	1.01	alt_start
Kalrn	kalirin isoform 1	545156	chr16	34262905	34514134	0	1	Ncomplex
Tec	tec protein tyrosine kinase	21682	chr5	73178017	73180378	0	0.99	alt_3
Hn1l	hematological and neurological expressed 1-like	52009	chr17	25085705	25097533	0	0.99	alt_cassette
H2-T10	histocompatibility 2, T region locus 10	15024	chr17	36176319	36177422	0	0.99	alt_cassette
Tmem2	transmembrane protein 2	83921	chr19	21853276	21867127	0	0.98	alt_cassette
Csf1	colony stimulating factor 1 (macrophage)	12977	chr3	107551202	107553228	0	0.97	alt_3
Spr	sepiapterin reductase	20751	chr6	85086925	85087432	0	0.97	alt_3
Nfasc	neurofascin	269116	chr1	134493225	134498547	0	0.97	alt_cassette
Dst	dystonin	13518	chr1	34306483	34307454	0	0.96	alt_cassette
Zcchc2	zinc finger, CCHC domain containing 2	227449	chr1	107900753	107908278	0	0.96	alt_cassette
Nrg3	neuregulin 3	18183	chr14	39825259	40286359	0	0.96	complex
1110017D15Rik	RIKEN cDNA 1110017D15 gene	73721	chr4	41454302	41454553	0	0.95	alt_3
Dab2	disabled homolog 2 (Drosophila)	13132	chr15	6249899	6374250	0	0.95	alt_end

Tao3	TAO kinase 3	330177	chr5	117570137	117635535	0	0.94	alt_start
Igf1	insulin-like growth factor 1	16000	chr10	87321911	87327475	0	0.94	alt_start
Rbfox1	RNA binding protein, fox-1 homolog (C. elegans) 1	268859	chr16	5885090	6487911	0	0.94	alt_start
Dip2a	DIP2 disco-interacting protein 2 homolog A (Drosophila)	64451	chr10	75782331	75790446	0	0.93	alt_cassette
Unc13a	unc-13 homolog A (C. elegans)	382018	chr8	74188175	74189877	0	0.93	complex
Afmid	arylformamidase	71562	chr11	117671117	117673862	0	0.92	alt_3
Cluap1	clusterin associated protein 1	76779	chr16	3884786	3897271	0	0.92	alt_cassette
Tor3a	torsin family 3, member A	30935	chr1	158596888	158603681	0	0.91	alt_cassette
Echdc2	enoyl Coenzyme A hydratase domain containing 2	52430	chr4	107849728	107851512	0	0.91	alt_cassette
Arl2bp	ADP-ribosylation factor-like 2 binding protein	107566	chr8	97190654	97191496	0	0.91	alt_start
Cp	ceruloplasmin	12870	chr3	19857429	19866239	0	0.9	alt_cassette
Exd2	exonuclease 3'-5' domain containing 2	97827	chr12	81577175	81581441	0	0.9	alt_cassette
Irgm2	immunity-related GTPase family M member 2	54396	chr11	58019867	58036100	0	0.9	alt_end
Pcdh17	protocadherin 17 precursor	219228	chr14	84851282	84865036	0	0.89	alt_end
Wdfy1	WD repeat and FYVE domain containing 1	69368	chr1	79723291	79730375	0	0.88	alt_cassette
Tecpr1	tectonin beta-propeller repeat containing 1	70381	chr5	144977894	144978094	0	0.88	retained_int
Zmynd11	zinc finger, MYND domain containing 11	66505	chr13	9697951	9720018	0	0.87	alt_cassette
Lrrc49	leucine rich repeat containing 49	102747	chr9	60527978	60532841	0	0.86	alt_cassette
Snx16	sorting nexin 16	74718	chr3	10420876	10437810	0	0.86	complex
Etl4	enhancer trap locus 4	208618	chr2	19831406	20732162	0	0.86	Ncomplex
Dhx58	DEXH (Asp-Glu-X-His) box polypeptide 58	80861	chr11	100557505	100559490	0	0.85	alt_cassette
Oasl2	2'-5' oligoadenylate synthetase-like 2	23962	chr5	115347871	115351249	0	0.84	alt_cassette
Psmb9	proteasome (prosome, macropain) subunit, beta type 9 (large multifunctional peptidase 2)	16912	chr17	34319296	34320560	0	0.84	alt_cassette
Gata1	GATA zinc finger domain containing 1	67210	chr5	3639968	3643557	0	0.84	alt_end
Sulf2	sulfatase 2	72043	chr2	165958354	165981156	0	0.84	alt_start
Ass1	argininosuccinate synthetase 1	11898	chr2	31347904	31353667	0	0.83	alt_cassette
Rab31	RAB31, member RAS oncogene family	106572	chr17	66001068	66071347	0	0.83	alt_end
Akap13	A kinase (PRKA) anchor protein 13	75547	chr7	82759934	82808297	0	0.83	alt_start
Vasp	vasodilator-stimulated phosphoprotein	22323	chr7	19846199	19850107	0	0.83	complex
Rbm47	RNA binding motif protein 47	245945	chr5	66414072	66417368	0	0.82	alt_cassette
Ogfod1	2-oxoglutarate and iron-dependent oxygenase domain containing 1	270086	chr8	96579244	96579943	0	0.81	alt_cassette
Nrip1	nuclear receptor interacting protein 1	268903	chr16	76352791	76374072	0	0.81	alt_start
Gsn	gelsolin	227753	chr2	35111993	35139424	0	0.81	complex
Sorbs3	sorbin and SH3 domain containing 3	20410	chr14	70602810	70603078	0	0.8	alt_3
Gbp1	guanylate binding protein 1	14468	chr3	142184076	142282001	0	0.8	alt_end
Msr1	macrophage scavenger receptor 1	20288	chr8	40667038	40693438	0	0.8	alt_end
Cmbl	carboxymethylenebutenolidase-like (Pseudomonas)	69574	chr15	31511772	31513740	0	0.79	alt_5
Commd9	COMM domain containing 9	76501	chr2	101726456	101737217	0	0.79	alt_cassette
Nol4	nucleolar protein 4	319211	chr18	23110791	23199756	0	0.79	alt_start
H2-T10	histocompatibility 2, T region locus 10	15024	chr17	36178958	36179307	0	0.78	alt_3
Ip6k1	inositol hexaphosphate kinase 1	27399	chr9	107883607	107883869	0	0.77	alt_3
Dapp1	dual adaptor for phosphotyrosine and 3-phosphoinositides 1	26377	chr3	137624539	137644282	0	0.77	alt_cassette

Lair1	leukocyte-associated Ig-like receptor 1	52855	chr7	3961416	3962088	0	0.77	alt_cassette
Ifi47	interferon gamma inducible protein 47	15953	chr11	48900646	48948889	0	0.77	alt_end
Rab31	RAB31, member RAS oncogene family	106572	chr17	66017315	66122021	0	0.77	alt_start
Tmem14a	transmembrane protein 14A	75712	chr1	21216760	21219671	0	0.76	alt_3
Gns	glucosamine (N-acetyl)-6-sulfatase	75612	chr10	120808259	120811445	0	0.76	alt_3
Baz2a	bromodomain adjacent to zinc finger domain, 2A	116848	chr10	127528832	127545949	0	0.76	alt_cassette
Lgals8	lectin, galactose binding, soluble 8	56048	chr13	12548679	12553714	0	0.76	alt_cassette
Runx1	runt related transcription factor 1	12394	chr16	92614005	92668952	0	0.76	alt_cassette
1810024B03Rik	hypothetical protein LOC329509	329509	chr2	127012090	127033910	0	0.76	alt_end
Hn1l	hematological and neurological expressed 1-like	52009	chr17	25074363	25081384	0	0.76	alt_end
Klk6	kallikrein related-peptidase 6	19144	chr7	51079913	51080879	0	0.76	alt_start
Zmat4	zinc finger, matrin type 4	320158	chr8	24907883	25012507	0	0.75	alt_cassette
Ogfod1	2-oxoglutarate and iron-dependent oxygenase domain containing 1	270086	chr8	96561322	96571192	0	0.75	alt_cassette
Asah2	N-acylsphingosine amidohydrolase 2	54447	chr19	32176117	32182658	0	0.75	alt_start
Tpd52	tumor protein D52	21985	chr3	8935040	8944610	0	0.75	complex
4930579C15Rik	RIKEN cDNA 4930579C15 gene	67753	chr4	94574315	94574438	0	0.75	retained_int
Phyhd1	phytanoyl-CoA dioxygenase domain containing 1	227696	chr2	30125367	30132522	0	0.75	twin_cassett
Mpzl1	myelin protein zero-like 1	68481	chr1	167523808	167534740	0	0.74	alt_cassette
Nfatc3	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 3	18021	chr8	108583873	108607731	0	0.74	alt_cassette
Ahnak	AHNAK nucleoprotein (desmoyokin)	66395	chr19	9075353	9151409	0	0.74	alt_end
Sulf1	sulfatase 1	240725	chr1	12682765	12776159	0	0.73	alt_cassette
Phc3	polyhomeotic-like 3 (Drosophila)	241915	chr3	30841574	30849797	0	0.73	alt_cassette
Lrrkip1	leucine rich repeat (in FLII) interacting protein 1	16978	chr1	93011521	93025394	0	0.73	alt_end
Cnn2	calponin 2	12798	chr10	79455305	79457116	0	0.73	complex
Caly	calcyon neuron-specific vesicular protein	68566	chr7	147259979	147268012	0	0.72	alt_cassette
Taf1b	TATA box binding protein (Tbp)-associated factor, RNA polymerase I, B	21340	chr12	25189899	25194318	0	0.72	alt_cassette
Dis3	DIS3 mitotic control homolog (S. cerevisiae)	72662	chr14	99483373	99485266	0	0.72	alt_cassette
Igf1	insulin-like growth factor 1	16000	chr10	87378094	87394538	0	0.72	alt_end
Net1	neuroepithelial cell transforming gene 1	56349	chr13	3881808	3917183	0	0.72	alt_end
1700106N22Rik	RIKEN cDNA 1700106N22 gene	73582	chr17	85513187	85857920	0	0.72	alt_end
Dlgap2	discs, large (Drosophila) homolog-associated protein 2	244310	chr8	14095874	14531028	0	0.72	alt_start
Asphd2	aspartate beta-hydroxylase domain containing 2	72898	chr5	112821255	112822825	0	0.72	complex
Dlg3	discs, large homolog 3 (Drosophila)	53310	chrX	98002594	98006840	0	0.72	complex
P2rx4	purinergic receptor P2X, ligand-gated ion channel 4	18438	chr5	123169235	123174998	0	0.71	alt_cassette
Ccl25	chemokine (C-C motif) ligand 25	20300	chr8	4347714	4348503	0	0.71	alt_cassette
Rpsa	ribosomal protein SA	16785	chr9	120036905	120037574	0	0.71	alt_start
Il33	interleukin 33	77125	chr19	29999626	30024149	0	0.71	alt_start
H2-Q6	histocompatibility 2, Q region locus 6	110557	chr17	35378749	35566998	0	0.71	Ncomplex
Itgb1	integrin beta 1 (fibronectin receptor beta)	16412	chr8	131231059	131237107	0	0.7	alt_cassette
Brd2	bromodomain containing 2	14312	chr17	34253280	34253852	0	0.7	alt_cassette
Vamp1	vesicle-associated membrane protein 1	22317	chr6	125170261	125191921	0	0.7	alt_end
Palld	palladin, cytoskeletal associated protein	72333	chr8	63993999	64163531	0	0.7	alt_end
Rgs7	regulator of G protein signaling 7	24012	chr1	177006228	177008319	0	0.7	complex

Il21r	interleukin 21 receptor	60504	chr7	132772557	132774218	0	0.69	alt_cassette
Drosha	drosha, ribonuclease type III	14000	chr15	12757027	12763604	0	0.69	alt_cassette
Abca3	ATP-binding cassette, sub-family A (ABC1), member 3	27410	chr17	24489196	24497832	0	0.69	alt_cassette
Dlg2	discs, large homolog 2 (Drosophila)	23859	chr7	99237071	99435000	0	0.69	alt_start
Cenpk	centromere protein K	60411	chr13	105019034	105020808	0	0.69	alt_start
Myo10	myosin X	17909	chr15	25683075	25707835	0	0.69	complex
Mettl7a1	methyltransferase like 7A1	70152	chr15	100135775	100159093	0	0.68	alt_end
Fxyd5	FXYD domain-containing ion transport regulator 5	18301	chr7	31826476	31827148	0	0.68	alt_start
Rims1	regulating synaptic membrane exocytosis 1	116837	chr1	22394596	22411821	0	0.67	alt_cassette
Grb10	growth factor receptor bound protein 10	14783	chr11	11851662	11867534	0	0.67	alt_cassette
Unc79	unc-79 homolog (C. elegans)	217843	chr12	10433347	104342819	0	0.67	alt_cassette
Lmo7	LIM domain only 7	380928	chr14	102328668	102331786	0	0.67	alt_cassette
Cyth4	cytohesin 4	72318	chr15	78436343	78438555	0	0.67	alt_cassette
Cadps2	Ca2+-dependent activator protein for secretion 2	320405	chr6	23332880	23360741	0	0.67	alt_end
Spata6	spermatogenesis associated 6	67946	chr4	111392614	111451604	0	0.67	alt_start
Itga6	integrin alpha 6	16403	chr2	71658311	71694815	0	0.67	Ncomplex
Cib1	calcium and integrin binding 1 (calmyrin)	23991	chr7	87373434	87377395	0	0.67	twin_cassett
Atrx	alpha thalassemia/mental retardation syndrome X-linked homolog (human)	22589	chrX	103095332	103106808	0	0.66	alt_cassette
Ryr2	ryanodine receptor 2, cardiac	20191	chr13	11645369	11864686	0	0.66	alt_end
Ddx58	DEAD (Asp-Glu-Ala-Asp) box polypeptide 58	230073	chr4	40167536	40186858	0	0.66	alt_start
Rora	RAR-related orphan receptor alpha	19883	chr9	68501608	69226835	0	0.66	Ncomplex
Rab34	RAB34, member of RAS oncogene family	19376	chr11	78004937	78005133	0	0.65	alt_3
Dst	dystonin	13518	chr1	34359877	34363372	0	0.65	alt_cassette
Crtc2	CREB regulated transcription coactivator 2	74343	chr3	90064272	90066393	0	0.65	alt_cassette
Erc1	ELKS/RAB6-interacting/CAST family member 1	111173	chr6	119775227	119797894	0	0.65	alt_cassette
Abca8b	ATP-binding cassette, sub-family A (ABC1), member 8b	27404	chr11	109835132	109836303	0	0.65	alt_cassette
2310008H04Rik	RIKEN cDNA 2310008H04 gene	224008	chr16	16037782	16118992	0	0.65	alt_cassette
Upp2	uridine phosphorylase 2	76654	chr2	58632539	58644241	0	0.65	alt_end
Nkain3	Na+/K+ transporting ATPase interacting 3	269513	chr4	20046020	20210007	0	0.65	alt_end
BC026585	cDNA sequence BC026585	226527	chr1	159395952	159418573	0	0.65	complex
Chd7	chromodomain helicase DNA binding protein 7	320790	chr4	8617552	8678470	0	0.65	complex
Gpr64	G protein-coupled receptor 64	237175	chrX	156876245	156899274	0	0.64	alt_cassette
5430435G22Rik	RIKEN cDNA 5430435G22 gene	226421	chr1	133608802	133609070	0	0.64	retained_int
Fam33a	family with sequence similarity 33, member A	66140	chr11	86922806	86929646	0	0.64	alt_3
Top2a	topoisomerase (DNA) II alpha	21973	chr11	98854619	98855098	0	0.64	alt_3
Ifi27l1	interferon, alpha-inducible protein 27 like 1	52668	chr12	104674892	104675659	0	0.64	alt_3
Tropap	trophinin associated protein	78733	chr15	98905498	98905780	0	0.64	alt_5
Sntg1	syntrophin, gamma 1	71096	chr1	8794051	8989266	0	0.64	alt_cassette
Cntn4	contactin 4	269784	chr6	105874818	106131676	0	0.64	alt_cassette
Nqo1	NAD(P)H dehydrogenase, quinone 1	18104	chr8	109913004	109916042	0	0.64	alt_cassette
Ctsh	cathepsin H	13036	chr9	89955348	89957554	0	0.64	alt_cassette
Ikzf1	IKAROS family zinc finger 1	22778	chr11	11607907	11654009	0	0.64	alt_cassette
Cd47	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)	16423	chr16	49868225	49884277	0	0.64	alt_cassette

Sorbs1	sorbin and SH3 domain containing 1	20411	chr19	40468006	40473031	0	0.64	alt_cassette
Lsamp	limbic system-associated membrane protein	268890	chr16	42144813	42176405	0	0.64	alt_end
Irf1	interferon regulatory factor 1	16362	chr11	53583579	53584785	0	0.64	alt_start
Fn1	fibronectin 1	14268	chr1	71643961	71644947	0	0.64	complex
Sorbs2	sorbin and SH3 domain containing 2	234214	chr8	46593148	46744156	0	0.64	Ncomplex
Rtnk	rhotekin	20166	chr6	83087450	83087954	0	0.64	retained_int
N6amt1	N-6 adenine-specific DNA methyltransferase 1 (putative)	67768	chr16	87366525	87367709	0	0.64	retained_int
Ptbp1	polypyrimidine tract binding protein 1	19205	chr10	79321569	79321816	0	0.63	alt_3
Arpc5	actin related protein 2/3 complex, subunit 5	67771	chr1	154616063	154621389	0	0.63	alt_cassette
Rnf114	ring finger protein 114	81018	chr2	167329101	167336375	0	0.63	alt_cassette
Cd68	CD68 antigen	12514	chr11	69478868	69479522	0	0.63	alt_cassette
Nrxn3	neurexin III	18191	chr12	91407531	91442950	0	0.63	alt_cassette
Map4k3	mitogen-activated protein kinase kinase kinase kinase 3	225028	chr17	81023454	81029755	0	0.63	alt_cassette
Sh3glb1	SH3-domain GRB2-like B1 (endophilin)	54673	chr3	144346641	144354421	0	0.63	alt_end
Dst	dystonin	13518	chr1	33965069	34063035	0	0.63	alt_start
Ampd3	adenosine monophosphate deaminase 3	11717	chr7	117911719	117921312	0	0.63	alt_start
Iqck	IQ motif containing K	434232	chr7	125999288	126085098	0	0.63	alt_start
Ggta1	glycoprotein galactosyltransferase alpha 1, 3	14594	chr2	35268947	35271991	0	0.63	complex
Zufsp	zinc finger with UFM1-specific peptidase domain	72580	chr10	33639181	33647308	0	0.63	complex
Dmd	dystrophin, muscular dystrophy	13405	chrX	80060248	82450380	0	0.63	Ncomplex
Akap9	A kinase (PRKA) anchor protein (yotiao) 9	100986	chr5	3951734	3954791	0	0.62	alt_cassette
Slmap	sarcolemma associated protein	83997	chr14	27234474	27237598	0	0.62	alt_cassette
Twf1	twinfilin, actin-binding protein, homolog 1 (Drosophila)	19230	chr15	94416967	94420183	0	0.62	alt_cassette
Fyb	FYN binding protein	23880	chr15	6593763	6596636	0	0.62	alt_cassette
Chrdl1	chordin-like 1	83453	chrX	139720216	139734411	0	0.62	alt_end
Casp8	caspase 8	12370	chr1	58852217	58880758	0	0.62	alt_start
Csf3r	colony stimulating factor 3 receptor (granulocyte)	12986	chr4	125704561	125707007	0	0.62	complex
Itgam	integrin alpha M	16409	chr7	135260360	135271674	0	0.62	complex
Aimp2	aminoacyl tRNA synthetase complex-interacting multifunctional protein 2	231872	chr5	144667624	144670569	0	0.61	alt_5
4933434E20Rik	RIKEN cDNA 4933434E20 gene	99650	chr3	89857531	89860451	0	0.61	alt_cassette
Rnf181	ring finger protein 181	66510	chr6	72311220	72312310	0	0.61	alt_cassette
Tspan4	tetraspanin 4	64540	chr7	148661376	148675471	0	0.61	alt_cassette
Ifnar2	interferon (alpha and beta) receptor 2	15976	chr16	91394158	91403954	0	0.61	alt_cassette
Emr1	EGF-like module containing, mucin-like, hormone receptor-like sequence 1	13733	chr17	57498159	57541348	0	0.61	alt_cassette
Dbi	diazepam binding inhibitor	13167	chr1	122016589	122017656	0	0.61	alt_start
R3hdm2	R3H domain containing 2	71750	chr10	126837185	126881331	0	0.61	alt_start
Bahcc1	BAH domain and coiled-coil containing 1	268515	chr11	120151500	120151741	0	0.61	retained_int
Nek6	NIMA (never in mitosis gene a)-related expressed kinase 6	59126	chr2	38406171	38413396	0	0.6	alt_3
Tmem219	transmembrane protein 219	68742	chr7	134040452	134041737	0	0.6	alt_cassette
Gmip	Gem-interacting protein	78816	chr8	72341019	72341642	0	0.6	alt_cassette
Vps26a	vacuolar protein sorting 26 homolog A (yeast)	30930	chr10	61933863	61949426	0	0.6	alt_cassette
Gbp1	guanylate binding protein 1	14468	chr3	142159897	142263449	0	0.6	alt_start
Ercc2	excision repair cross-complementing rodent repair deficiency, complementation group 2	13871	chr7	19967388	19972344	0	0.6	complex

Eif4g3	eukaryotic translation initiation factor 4 gamma, 3	230861	chr4	137638903	137652666	0	0.6	Ncomplex
Pak7	p21 protein (Cdc42/Rac)-activated kinase 7	241656	chr2	136095213	136213389	0	0.59	alt_cassette
2810453l06Rik	RIKEN cDNA 2810453l06 gene	67238	chr5	144310002	144323624	0	0.59	alt_cassette
Syne1	nesprin-1	64009	chr10	5299010	5302787	0	0.59	alt_cassette
Synpo	synaptopodin	104027	chr18	60753635	60760048	0	0.59	alt_end
3110062M04Rik	RIKEN cDNA 3110062M04 gene	78412	chr6	34826771	34827899	0	0.58	alt_5
Gpcpd1	glycerophosphocholine phosphodiesterase GDE1 homolog (S. cerevisiae)	74182	chr2	132376290	132382670	0	0.58	alt_cassette
Slfn5	schlafen 5	327978	chr11	82765697	82769764	0	0.58	alt_cassette
Acot1	acyl-CoA thioesterase 1	26897	chr12	85350460	85355147	0	0.58	alt_start
Tnc	tenascin C	21923	chr4	63637602	63667279	0	0.58	complex
Fln	folliculin	216805	chr11	59621417	59623201	0	0.57	alt_5
Trp53bp1	transformation related protein 53 binding protein 1	27223	chr2	121053584	121061308	0	0.57	alt_cassette
Thbs3	thrombospondin 3	21827	chr3	89019226	89021627	0	0.57	alt_cassette
Tmem53	transmembrane protein 53	68777	chr4	116938465	116940495	0	0.57	alt_cassette
Tom1l2	target of myb1-like 2 (chicken)	216810	chr11	60044639	60055319	0	0.57	alt_cassette
Faf2	Fas associated factor family member 2	76577	chr13	54723264	54739610	0	0.57	alt_cassette
Cenpm	centromere protein M	66570	chr15	82064939	82070308	0	0.57	alt_cassette
Fam126a	family with sequence similarity 126, member A	84652	chr5	23421094	23485305	0	0.57	alt_end
Robo2	roundabout homolog 2 (Drosophila)	268902	chr16	74046066	74352795	0	0.57	alt_end
Atrip	ATR interacting protein	235610	chr9	108961442	108962160	0	0.56	alt_5
Aagab	alpha- and gamma-adaptin binding protein	66939	chr9	63464854	63465314	0	0.56	alt_5
Plcb2	phospholipase C, beta 2	18796	chr2	118549544	118550752	0	0.56	alt_cassette
Siglech	sialic acid binding Ig-like lectin H	233274	chr7	63024091	63024701	0	0.56	alt_cassette
Arhgap9	Rho GTPase activating protein 9	216445	chr10	126760886	126762174	0	0.56	alt_cassette
Bap1	Brcal associated protein 1	104416	chr14	32065120	32066662	0	0.56	alt_cassette
AK030376	RIKEN full-length enriched library, clone:2310001H17	76432	chr6	129183151	129187873	0	0.56	alt_start
Cd44	CD44 antigen	12505	chr2	102679634	102693171	0	0.56	complex
Usp14	ubiquitin specific peptidase 14	59025	chr18	10016642	10022815	0	0.55	alt_cassette
Wbp1	WW domain binding protein 1	22377	chr6	83070281	83071196	0	0.55	alt_cassette
Rexo2	REX2, RNA exonuclease 2 homolog (S. cerevisiae)	104444	chr9	48283302	48288512	0	0.55	alt_cassette
Cnot10	CCR4-NOT transcription complex, subunit 10	78893	chr9	114538255	114541815	0	0.55	alt_cassette
Ranbp17	RAN binding protein 17	66011	chr11	33229544	33341802	0	0.55	alt_cassette
Scn1a	sodium channel, voltage-gated, type I, alpha	20265	chr2	66108838	66188970	0	0.55	alt_end
Kcnmb4	potassium large conductance calcium-activated channel, subfamily M, beta member 4	58802	chr10	115854923	115910241	0	0.55	alt_end
Cltb	clathrin, light polypeptide (Lcb)	74325	chr13	54694299	54698386	0	0.55	alt_end
Arhgef4	Rho guanine nucleotide exchange factor (GEF) 4	226970	chr1	34735032	34861758	0	0.55	alt_start
Elov1	elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 1	54325	chr4	118100697	118103100	0	0.55	alt_start
No14	nucleolar protein 4	319211	chr18	22982071	23110811	0	0.55	alt_start
Tpm1	tropomyosin 1, alpha	22003	chr9	66879321	66880600	0	0.55	Ncomplex
Smtn	smoothelin	29856	chr11	3426483	3439242	0	0.55	Ncomplex
Cant1	calcium activated nucleotidase 1	76025	chr11	118279120	118280243	0	0.55	retained_int
2400003C14Rik	RIKEN cDNA 2400003C14 gene	71955	chr8	112199304	112201406	0	0.55	alt_cassette
Ank3	ankyrin 3, epithelial	11735	chr10	69413806	69418673	0	0.54	alt_cassette

Irf7	interferon regulatory factor 7	54123	chr7	148450458	148450623	0	0.54	alt_3
Surf4	surfeit gene 4	20932	chr2	26782455	26789242	0	0.54	alt_5
Sccep1	serine carboxypeptidase 1	74617	chr11	88805165	88808479	0	0.54	alt_cassette
Lgals9	lectin, galactose binding, soluble 9	16859	chr11	78780976	78784839	0	0.54	alt_cassette
Ctage5	CTAGE family, member 5	217615	chr12	60238773	60247833	0	0.54	alt_cassette
H2-M9	histocompatibility 2, M region locus 9	14997	chr17	36777503	36778479	0	0.54	alt_cassette
Prune2	protein prune homolog 2	353211	chr19	17282819	17286781	0	0.54	alt_cassette
Dock4	dederator of cytokinesis 4	238130	chr12	41452390	41514814	0	0.54	alt_end
Arhgap29	Rho GTPase activating protein 29	214137	chr3	121676796	121684732	0	0.54	alt_start
St6gal1	beta galactoside alpha 2,6 sialyltransferase 1	20440	chr16	23224834	23317636	0	0.54	alt_start
Fbxo7	F-box protein 7	69754	chr10	85485075	85487312	0	0.54	complex
Fam122b	family with sequence similarity 122, member B	78755	chrX	50598548	50607212	0	0.54	complex
Rgma	RGM domain family, member A	244058	chr7	80520774	80554117	0	0.53	alt_cassette
Ccdc90b	coiled-coil domain containing 90B	66365	chr7	99717085	99723131	0	0.53	alt_cassette
Taf5l	TAF5-like RNA polymerase II, p300/CBP-associated factor (PCAF)-associated factor	102162	chr8	126527601	126533589	0	0.53	alt_cassette
Atp6v0a1	ATPase, H ⁺ transporting, lysosomal V0 subunit A1	11975	chr11	100879878	100881787	0	0.53	alt_cassette
Abcc1	ATP-binding cassette, sub-family C (CFTR/MRP), member 1	17250	chr16	14394183	14404083	0	0.53	alt_cassette
1110012J17Rik	RIKEN cDNA 1110012J17 gene	68617	chr17	66729776	66735199	0	0.53	alt_cassette
Nek6	NIMA (never in mitosis gene a)-related expressed kinase 6	59126	chr2	38367219	38406072	0	0.53	alt_start
Cyb5r3	cytochrome b5 reductase 3	109754	chr15	82996636	83002638	0	0.53	alt_start
Cdkn1a	cyclin-dependent kinase inhibitor 1A (P21)	12575	chr17	29230719	29235341	0	0.53	alt_start
Sirt2	sirtuin 2 (silent mating type information regulation 2, homolog) 2 (S. cerevisiae)	64383	chr7	29551866	29561897	0	0.53	complex
Lmf2	lipase maturation factor 2	105847	chr15	89185211	89185786	0	0.53	complex
Sycp3	synaptonemal complex protein 3	20962	chr10	87935525	87935649	0	0.53	retained_int
Stard8	START domain containing 8	236920	chrX	96256118	96260917	0	0.53	twin_cassett
Irak2	interleukin-1 receptor-associated kinase 2	108960	chr6	113597697	113615696	0	0.53	complex
Erbb4	v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)	13869	chr1	68089312	68118091	0	0.52	alt_cassette
Mki67ip	Mki67 (FHA domain) interacting nucleolar phosphoprotein	67949	chr1	120218554	120224222	0	0.52	alt_cassette
Myt1	myelin transcription factor 1	17932	chr2	181536590	181539652	0	0.52	alt_cassette
Kidins220	kinase D-interacting substrate 220	77480	chr12	25723415	25735959	0	0.52	alt_cassette
Cybasc3	cytochrome b, ascorbate dependent 3	225912	chr19	10652573	10654952	0	0.52	alt_cassette
Ncf1	neutrophil cytosolic factor 1	17969	chr5	134695922	134697558	0	0.52	alt_end
Nkain2	Na ⁺ /K ⁺ transporting ATPase interacting 2	432450	chr10	31414137	31670924	0	0.52	alt_end
Ssr1	signal sequence receptor, alpha	107513	chr13	38058473	38071611	0	0.52	alt_end
5730528L13Rik	RIKEN cDNA 5730528L13 gene	66665	chr4	48565251	48573715	0	0.52	alt_start
3830406C13Rik	RIKEN cDNA 3830406C13 gene	218734	chr14	13116727	13116847	0	0.52	alt_start
Atat1	alpha tubulin acetyltransferase 1	73242	chr17	36046436	36046990	0	0.52	alt_start
Gpam	glycerol-3-phosphate acyltransferase, mitochondrial	14732	chr19	55172117	55201706	0	0.52	alt_start
Slc25a19	solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 19	67283	chr11	115470410	115470684	0	0.52	complex
Ece2	endothelin converting enzyme 2	107522	chr16	20617962	20630874	0	0.52	complex
Et4	enhancer trap locus 4	208618	chr2	19831406	20732162	0	0.52	Ncomplex
Kcnip1	Kv channel-interacting protein 1	70357	chr11	33545627	33893193	0	0.52	Ncomplex
Gsk3a	glycogen synthase kinase 3 alpha	606496	chr7	26014519	26014890	0	0.51	alt_3

Myo1g	myosin IG	246177	chr11	6419126	6420745	0	0.51	alt_3
Rgr	retinal G protein coupled receptor	57811	chr14	37860133	37862035	0	0.51	alt_3
Chd9	chromodomain helicase DNA binding protein 9	109151	chr8	93560449	93561305	0	0.51	alt_5
Plekha5	pleckstrin homology domain containing, family A member 5	109135	chr6	140540285	140544769	0	0.51	alt_cassette
Rad52	RAD52 homolog (S. cerevisiae)	19365	chr6	119852833	119868625	0	0.51	alt_cassette
Tacc2	transforming, acidic coiled-coil containing protein 2	57752	chr7	137789944	137818115	0	0.51	alt_cassette
Tmpo	thymopoietin	21917	chr10	90615925	90621492	0	0.51	alt_cassette
Cp	ceruloplasmin	12870	chr3	19889218	19905571	0	0.51	alt_end
Pxn	paxillin	19303	chr5	115998862	116005695	0	0.51	alt_end
Mthfsd	methenyltetrahydrofolate synthetase domain containing	234814	chr8	123621456	123622607	0	0.51	alt_end
Tnfrsf19	tumor necrosis factor receptor superfamily, member 19	29820	chr14	61643673	61665306	0	0.51	alt_start
Zfp101	zinc finger protein 101	22643	chr17	33523756	33531582	0	0.51	alt_start
Tmem123	transmembrane protein 123	71929	chr9	7768340	7790841	0	0.51	Ncomplex
Cd200r3	CD200 receptor 3	74603	chr16	44957946	44981470	0	0.51	Ncomplex
Git2	G protein-coupled receptor kinase-interactor 2	26431	chr5	115183952	115189041	0	0.5	alt_cassette
Ssbp2	single-stranded DNA binding protein 2	66970	chr13	91704299	91803722	0	0.5	alt_cassette
Cyp4f16	cytochrome P450, family 4, subfamily f, polypeptide 16	70101	chr17	32674141	32679682	0	0.5	alt_cassette
Stat1	signal transducer and activator of transcription 1	20846	chr1	52211885	52218598	0	0.5	alt_end
Rasgrf1	RAS protein-specific guanine nucleotide-releasing factor 1	19417	chr9	89805111	89819008	0	0.5	alt_end
Myl10	myosin, light chain 10, regulatory	59310	chr5	137170104	137173802	0	0.5	alt_start
Vgll4	vestigial like 4 (Drosophila)	23234	chr6	114840824	114919221	0	0.5	alt_start
Fam38b	family with sequence similarity 38, member B	667742	chr18	63177307	63178920	0	0.5	complex
Sorcs1	VPS10 domain receptor protein SORCS 1	58178	chr19	50225463	50227543	0	0.5	complex

Supplementary Table 7: Primer sequences

Gene	Forward primer	Reverse primer	Taqman probe
Mouse primers for qRT-PCR			
<i>Kcnip4</i>	TTCATGGAAAGTGCACAAAAA	CTACAAGTGGGGCTTCAC	n/a
<i>Park2</i>	CAGACAAGGACACGTCGTA	GGGATCCCAGGAAGTCTGT	n/a
<i>Smyd3</i>	TGATGAAAGTGGCAAGCTG	GTCCTCTGGGGTCCCTAG	n/a
<i>Nrxn3</i>	TTCACCTGTGACTGCTCCA	TTGCTGCCAGGTATAGAGG	n/a
<i>Nlgn1</i>	GGGGATGAGGTTCCCTATGT	GGTTGGGTTGGTATGGATG	n/a
<i>Nkain2</i>	GGGCTTCATCTATGCCCTGT	GATGCTTCTGAGGCCCTG	n/a
<i>Csmd1</i>	AATCACTACCAGGGCACCAG	TGGCCTCTGGGTTTAAG	n/a
<i>Mal</i>	TGTGGCTGCCATTTCACC	AACACAGCATGGACCACGTA	n/a
<i>Fus</i>	GGGATCAAGGATCTCGTCATGA	AGCCACAGATTCAATTGAACTTCT	CAGACAACAATACCATCTCGTGCAAGGCX
<i>Tardbp</i>	AAAAGGAAAATGGATGAGACAGATG	AAATAGTCTTCAGATCCTGCTCAGTT	TCTGACCTCATAGTGTGGGCTCCCCCTGX
<i>Cyclophilin A</i>	TCGCCGCTTGTGCGA	ATCGGCCGTGATGTCGA	CCATGGTCAACCCCACCGTGTTCX
<i>Rdp9</i>	GACAGGAGCTAAAGTGTGGA	GCGTCAACAGCTCCGGC	n/a
<i>Actg1g</i>	TGGATCAGCAAGCAGGAGTATG	CCTGCTCAGTCATCTAGAAGCA	n/a
<i>Actin B</i>	GGTGGGTATGGGTCAAAGGAC	GGCTGGGTGTTGAAGGTC	n/a
Mouse primers for splicing			
<i>Ttc3</i>	TGCTGAGGGAGGTCTCAGTT	GGAGAGTGGCTTACTGCACC	n/a
<i>Ndrd2</i>	AGGACAAACACCCGAGACTG	ATGGTAGGTGAATATGCCG	n/a
<i>Mapt</i>	CAGCCCTAACACTCCTCCAG	AGGCGGCTCTTACTAGCTGA	n/a
<i>Ddef2</i>	GACCTATGGAGCCATCTGA	CTGGTTCTCTGAGGCAGG	n/a
<i>hnRNP-D</i>	GACGCCAGTAAGAACGAGGA	TGATGCCCTGTGATAGGAT	n/a
<i>Kcnd3</i>	GGCAAGACCAACCTCACTCAT	AGTGGCTGGACAGAGAAGGA	n/a
<i>Mag</i>	ATTCTAGAACATCTGGGCA	CCCAGGTCTGAGTGGGATA	n/a
<i>Kcnip2</i>	CGGCTCTATGACCAGCTTA	GGAGTTGTCAGACCCCTCA	n/a
<i>Sort1</i>	CAGGAGACAAATGCCAAGGT	TGGCCAGGATAATAGGGACA	n/a
<i>Ppp3ca</i>	CTGACACTGAAGGGCCTGAC	GAGGTGGCATCCTCGTTA	n/a
<i>Dnajc5</i>	CTCTATGTGGCGAGCAGTT	GCTGTATGACGATCGGTGT	n/a
<i>Kcnd3</i>	GGCAAGACCAACCTCACTCAT	AGTGGCTGGACAGAGAAGGA	n/a
<i>Tia1</i>	TGAAAGTGAATTGGGCAACA	TGGACTGAGGTCAACCAACAA	n/a
<i>Ptk2b</i>	AGACCTCCTCCACAGACCAA	CATCTTCCCTCTCGCCTCAG	n/a
Human primers for qRT-PCR			
<i>PARK2</i>	TCGGAACATCACTGATTAC	CTGCCGATCATTGAGTCTTG	n/a
<i>SMYD3</i>	GGCAAACATGCAGCTACATCA	GTTGGCGTCGCATTCTCTA	n/a
<i>NRXN3</i>	GGACTTGGTGAATTCCCTCA	CACATGGTATTGCGCTCAT	n/a
<i>NLGN1</i>	AAGACCAGAGCGAAGACTGC	CCTTCCATATGAGCCACCA	n/a
<i>NKAIN2</i>	TATGGCTATCAAGGGCTCA	GAAAGGTCCATGGGCTGAC	n/a
<i>ATXN1</i>	GTGGCCGTGATACTAGTCG	CAAAGAGCTGGCTGGTTCTC	n/a
<i>KCNND2</i>	TCAGTCGCATCTACCACAG	AAACCATTCCGTTGCTCTG	n/a
<i>KCNIP4</i>	CATAGATGAGTCATTGAAAGCTG	CATTTGCTGTTGGATTAGGA	n/a
<i>FUS</i>	GTGACTGAAAGTGTCTTAAATCC	TCATCCCCGTAGTTACCCC	n/a
<i>TARDBP</i>	GATGGACGATGGTGTGACTG	AGAACTCCCGCAGCTCATC	n/a
<i>SMYD5</i>	ATGCAGAGACCTCTTCCA	CGCTGACAGCAGTCCAAGTA	n/a
<i>GAPDH</i>	ATGTCGTATGGGTGTGAA	AGTTGTCATGGATGACCTTGG	n/a
<i>BMI1</i>	GATACTACGATGCCAGCA	CCTTCTCCAGGTATAATGTAGGC	n/a